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JUNE 1966

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Members of the W.I.A. should refer all enquiries regarding delivery of "A.R." direct to their Divisional Secretary and not to "A.R." direct. Non members of the W.I.A. should write to the Victorian Division, C/o, P.O. Box 36, East Melbourne. Two months' notice is required before a change of mailing address can be effected. Readers should note that any change in the address of their transmitting station must, by P.M.G. regulation, be notified to the P.M.G. in the State of residence, in addition "A.R." should also be notified. A convenient form is provided in the "Call Book".

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FEDERAL COMMENT

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A FABLE FOR AMATEURS—WITH A MORAL

Last century there were two very small kingdoms, Manx and Utopia, both of which bordered the much larger kingdom of Gargantua. King Otto of Manx and King Paramount of Utopia were firm friends as were their countries before them. Peaceful relations had existed between the two countries for centuries and as far back as man could remember, a mutual defence treaty had existed between Manx and Utopia. This bond had been a strong deterrent to the ambitious policies of the King of Gargantua, who cherished dreams of taking over the two smaller countries, thus adding to his domain.

Otto and Paramount both enjoyed the same hobby—the breeding and raising of white cats with pink eyes. Their subjects had also become enthusiastic about this hobby and new and better methods of improving the breed were constantly exchanged between the two countries.

But it came to pass that a bright young man in Manx developed a new strain of white cat—one with green eyes. The Manx king soon disposed of his pink-eyed cats and devoted his efforts to the improvement of the green-eyed breed, as did his subjects. Soon this difference in ideas led to a bitter feud between the two kings—and the two kingdoms. As the rivalry increased, friendships crumbled. There was name calling and border incidents became numerous. Soon the armies of both countries were massed along the frontier, ready to attack—the mutual defence treaty was forgotten.

Today Manx and Utopia are no more. The Ambitious King of Gargantua had no difficulty in defeating the divided armies of the two tiny kingdoms and annexing their lands. Cats are now forbidden in these areas.

There is a moral in the foregoing story for us—the Radio Amateurs of Australia. Let us not become divided amongst ourselves over relatively petty differences. Amateur Radio means different things to different people. Respect the other fellow's major interest and don't resort to name calling if his ideas don't coincide with yours. Most of all remember that the Amateur in this country is represented by the Wireless Institute of Australia and even if you have a legitimate complaint against the W.I.A., you will achieve nothing by dropping your membership and loudly proclaiming your intense dislike of the Institute to all and sundry. Yes, you may hurt the Institute a little, but it will still outlast you—more important you hurt the Amateur fraternity as a whole by dividing members one against the other. The probable result is summed up in our fable. Be positive in your approach. If you have a grouch take office in the Institute and attempt to rectify what you consider to be wrong. You are then doing all Amateurs, including yourself, a service.

—D. H. Rankin, Federal Activities Officer, W.I.A.

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Swan SW140 Converted to triband Transceiver, fitted with new front panel. Requires some work. £98

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ATLANTIC RADIO

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36 Oxford St., Woollahra, N.S.W. 31-7811

TWO-UNIT PYE BASE STATION CONVERSION

ROGER L. HARRISON,* VK3ZRY

THESE units are the old a.m. base stations which have recently appeared on disposals in small numbers. The conversion presented here is for six metres a.m. net frequency (53.032 Mc.).

TRANSMITTER CONVERSION

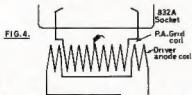
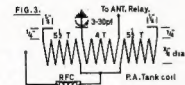
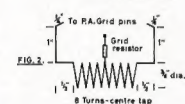
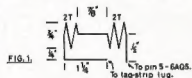
The transmitter runs an 832A in the final or a QQE04/20. Both tubes are identical. The driver is generally a 6AQ5, and a 6AM5 or 6AU6 is used in the oscillator. The transmitter conversion is easy and quite straightforward. The coils are easily located under the chassis; no trouble should be experienced in locating them. Remove all the original coils and replace, one at a time (to remember the connections) with the following coils:

Oscillator Anode Coil. Rewind 14 turns of 26 B. & S. enamelled wire. This should resonate to 26.5 Mcs.

Driver Anode Coil. Wind 4 turns, $\frac{1}{2}$ in. inside diameter of 18 s.w.g. enamelled wire. Refer to Fig. 1.

P.A. Grid Coil. Wind 8 turns, 18 s.w.g. enamelled wire, $\frac{1}{2}$ in. diameter centre tapped. Refer to Fig. 2.

P.A. Tank Coil. Wind 11 turns, $\frac{1}{2}$ in. inside diameter of 18 gauge B. & S. enamelled wire. Refer to Fig. 3.



Output Link. Wind 4 turns, $\frac{1}{2}$ in. inside diameter of 18 gauge B. & S. enamelled wire. A 3-30 p.F. Philips trimmer is in series with the earth end. Refer to Fig. 3.

Note that the p.a. grid coil is mounted inside the driver plate coil to achieve tight inductive coupling. (See Fig. 4.)

There is no conversion needed on the audio section except that the microphone you desire to use may not suit the unit. If so, then I leave it up to the constructor to make his own arrangements, as ideas and methods on this subject will vary widely. The tune-up procedure I will leave till later, as this should be attempted after receiver conversion.

RECEIVER CONVERSION

This will almost be the same as per the article in "A.R.," November, 1965. I used a different crystal than that specified in the article, and noticed a few differences. The conversion presented here is that to suit an 11,186.4 Kcs. crystal.

Coils: The coil data is as follows (see Fig. 5):—

- L1=11 turns, tap 2½ turns from earth, 20 B. & S. enamelled.
- L2=7 turns, 20 B. & S. enamelled.
- L3=6½ turns, 20 B. & S. enamelled.
- L4=5 turns, 20 B. & S. enamelled.
- L5=11 turns, 28 B. & S. enamelled.

Mute Circuit: Next to the mute relay you will find two capacitors mounted side by side as shown in Fig. 6. Remove the one towards the back of the chassis—this improves the sensitivity of the mute. Also remove the 4.7K ohm resistor and change the 10 ohm to 39 ohm resistor.

Alignment: This will be the same as in "A.R.," November, 1965, except that for an 11,186 Kcs. crystal the 1st i.f. will be 14.0864 Mcs. The 1st i.f. transformer (T1) will tune to this easily.

To align the receiver you will find it necessary to connect the terminal on the back of the chassis marked "Relay" to the "E" (earth) terminal. Also connect the 3 ohm terminal to the LS terminal. You will also find it necessary to turn the mute control fully anticlockwise. The two pots mounted on the chassis are r.f. gain and a.f. gain; these should be turned fully clockwise.

Mute Adjustment:

1. Turn on receiver.
2. Turn mute control fully anticlockwise.
3. Allow receiver to warm up until the mute relay opens and noise is heard.
4. With antenna connected to unit and noise coming through, turn mute control clockwise slowly until the mute relay is heard to just drop out. This is the most sensitive position of the control. The meter on the front panel will probably read. Don't worry, as this is only a visual indication of when a signal is present when the monitor switch is turned down.

5. DO NOT advance the control any further as this reduces the sensitivity of the mute. If this occurs return the pot to fully anti-clockwise and repeat the procedure.

It was noted that after about another 20 minutes or so the mute would open of its own accord. Re-setting the mute control will restore order.

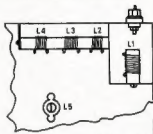


FIG. 5. To front panel

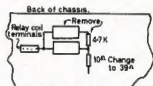


FIG. 6.

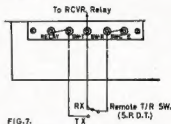


FIG. 7.

TRANSMITTER ADJUSTMENT

Before commencing the transmitter tune up the terminals on the back left-hand end (below power transie) should be connected as follows:

1. SW-C to E.
2. Relay to SW-T.

On the right-hand back terminal board:

1. E to INPUT.
2. One side of mic. to INPUT.

Before commencing tune-up a proper antenna should be connected to the Tx. An in-line r.f. indicating device such as an s.w.r. meter should be used to monitor r.f. output.

For tune-up, toggle switch at back of chassis should be up;

For operation and modulation checks it should be down.

The tune-up procedure is as follows:

1. Turn meter switch to G1.
2. Turn on Tx and peak oscillator anode coil for maximum reading.

(Continued on Page 5)

* 1 Mary St., North Balwyn, E.R. Vic.

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Model 4/104 V.F.o. Unit. Tunes 80, 40, 20, 15, 11, and 10 metres. Uses 6CL4 and 6X5, 12 valves. Price (valves extra), \$34.66.
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2-08	1/8 in.	8 in.	No. 3006	\$9.55
2-16	1/8 in.	8 in.	No. 3007	\$9.55
3-08	1/8 in.	8 in.	No. 3010	\$9.55
3-16	1/8 in.	8 in.	No. 3011	\$9.55
4-08	1 in.	8 in.	No. 3014	\$9.55
4-16	1 in.	8 in.	No. 3015	\$9.55
5-08	1 1/2 in.	8 in.	No. 3018	\$9.55
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"QST," March, 1959;
"Amateur Radio," Dec., 1959.

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\$9.55	\$9.55	\$9.55
3/8 in. " "	3/8 in. " "	3/8 in. " "
\$9.55	\$9.55	\$9.55
1/2 in. " "	1/2 in. " "	1/2 in. " "
\$9.55	\$9.55	\$9.55
1 in. " "	1 in. " "	1 in. " "
\$9.55	\$9.55	\$9.55
1 1/2 in. " "	1 1/2 in. " "	1 1/2 in. " "
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DK78-2 Single Pole two throw	\$15.00
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DK78-6 Single Pole Six throw	\$15.00

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3. Turn meter switch to G2 and peak 6AQ5 anode (trimmer on top of chassis) for maximum reading.

4. Turn meter switch to p.a. and tune for a dip. Adjust the coupling and tuning of the output link for maximum r.f. out. Retune p.a. tuning for a dip. Now check modulation by turning meter switch to mod. and make sure that it kicks to about 100% or a bit more on peaks. If not, keep adjusting link coupling and tuning as well as p.a. tuning until a good compromise between r.f. output and modulation is reached.

5. Adjust the modulator gain (pot. near 6SN7) to suit the microphone you use.

INTERCONNECTING UNITS

When both the transmitter and receiver are working to your satisfaction mount them in the cabinet and connect the terminal marked RELAY on the back of the receiver (previously connected to earth) to the SW-R terminal on the left-hand board on the back of the transmitter chassis. Connect, via coaxial cable, the socket marked RE to the aerial socket on the receiver. Check that the receiver relay drops out when you press the transmit key.

REMOTE CONTROL OF UNIT

Transmitter: Connect SW-T, SW-R and SW-C as in Fig. 7.

Receiver: Remove connection between 3 ohm and LS terminals. Then connect as shown in Fig. 8.

Well, that's about the lot; hope your unit works like the one I converted. Any queries should be addressed to me, including an s.a.s.e.

NOISE LIMITER FOR MOBILE USE

DAVID PRIESTLEY*

In normal communications receivers the noise is generated within the set itself by the valves, poor type resistors and condensers, etc. The only effective way this noise can be overcome is to use high quality parts and low-noise valves, or more in keeping with our modern times, transistors.

However, this noise limiter which I am reviewing is more for the types of noise encountered by the Amateur or s.w.l. with mobile receiving equipment. A classical example of this is the interference radiated by the ignition system of a car. The pulses from the ignition system are of high intensity but short duration, the time between pulses being greater than the actual duration of the pulses themselves. Even so, we all know the nuisance such pulses cause to us while trying to copy weak signals not only from the engine of our own car but the other vehicles using our overcrowded roads.

Electric motors cause considerable noise to be fed into radio receivers, as do the high tension wires which span our roads every few miles or so.

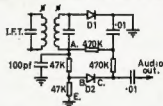
When an r.f. carrier is received by the set, the detector diode D1 conducts on alternate half-cycles making A negative with respect to E. AE is a conventional diode load consisting of two 47K ohm resistors in series. The potential difference between A and E is proportional to the strength of the carrier.

The 100 pF. capacitor in parallel with the diode load offers a low impedance to radio frequencies. Therefore if the

strength of the carrier varies at audio rate, the voltage appearing across AE will also vary at an audio rate.

Point A in the circuit is the usual take-off point of our audio output so in effect we have put the noise limiter in series with our detector stage and the audio output stage.

There is a negative voltage appearing between point D and earth but it cannot vary at an audio rate because of the high value of the resistance between A and D and the presence of the 0.01 μ F. capacitor. Therefore the voltage between D and earth is simply equal to the voltage between A and E.



While all voltages in the circuit remain equal, our diode D2 will conduct audio signals to the audio amplifier because the anode is positive in respect to the cathode. Should, however, a sudden audio pulse appear across BE which is greater in amplitude than the average voltage across AE, the anode of the diode will become negative with respect to the cathode and the pulse will not be transferred to the audio amplifier. In point of fact, any signal appearing at point B that is not varying at audio rate will be rejected.

One disadvantage of this noise limiter is that when mobile and someone comes on the air to call on c.w., because of the facts already outlined, D2 will not conduct immediately and therefore somewhat clipped c.w. is the result. For this reason, and this reason only is switching necessary.

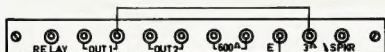
In my own mobile receiver I have used this noise limiter with first-class results and haven't even bothered to switch it in and out.

All resistors can be $\frac{1}{2}$ watt type and the capacitors of low voltage variety. This has the added advantage of giving a small piece of foreign equipment to be added to your already overcrowded mobile receiver. In fact, with careful layout this can be made on a piece of matrix board one inch square with plenty of room to spare.

The diode I used was an OA202 for this reason. This type of diode requires a small voltage to "fire" it, and when no signals are coming through, the diode will not conduct, but the instant any signal comes on the air, the diode passes it. This in effect gives a mild form of muting.

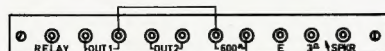
The gentleman to whom the credit belongs for passing this to me is Les Jenkins VK2ZBJ.

(A.) For 3 Ω Remote speaker.



To SW-R on TX terminal board. To ext. SPKR. To ext. SPKR. Remove link.

(B.) For 600 Ω Remote speaker.



To SW-R on TX Terminal board. To 600 Ω line. To 600 Ω line. Remove link.

FIG. 8.

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SPECIFICATIONS:

Output Impedance 50 ohms or 50K ohms
Effective output level -55 db. [0 db. — (one) 1V. Microbar]
Frequency response 200 to 10,000 c.p.s.

OMNI-DIRECTIONAL DYNAMIC:

SIZE: 3" x 2-1/8" x 1".
Cable: 12 ft. of P.V.C.
Switch: on-off.
Desk Stand. Clip folds for hand use.
Colour: WHITE.
Plastic Diaphragm.

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ELEC. AUST. APRIL 1966	3 Band Double Change Receiver	PT2052
		Z3040
		OT 67/15
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		PT YD19 (2 req'd)
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ELEC. AUST. DEC. 1965	A Simple Public Address Amp.	PT1983
		OT 67/15
ELEC. AUST. OCT.-NOV. 1965	Playmaster Program Source	PT1983
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SOME THOUGHTS ON HANG A.G.C. SYSTEMS*

CHET OPAL, K3CUW

THE many variations of Goodman's hang a.g.c. circuit¹ which have appeared in "QST" over the last eight years attest to the popularity of this type of automatic gain control for s.s.b. and c.w. reception. Unfortunately, the circuits used tend to be somewhat complicated and many Hams may be reluctant to use them, particularly since no suggestions are given as to how to adapt the systems to one's particular needs. My purpose here is to present a set of modifications applicable to any of the "hang" systems and, for the most part, to the simpler fast-attack slow-decay circuits now popular in commercial gear. The modifications include a circuit to prevent the a.g.c. from hanging up on isolated tones, and the addition of a cathode follower so that the a.g.c. line may be used for other purposes, such as receiver muting or manual gain control. Methods of adapting gain-controlled amplifiers for good performance under fast attack a.g.c. conditions are also discussed.

In V1A, part of the result is rectified in V2B, filtered, and dumped on to C1 through V2C. C1 will thus charge up immediately to the peak of the audio voltage appearing on the plate of V1B and will stay at that voltage until discharged through V1B. The resulting negative voltage is applied to the grids of the 1F tubes to reduce the gain of the receiver. There should be no d.c. return to ground on the a.g.c. line itself or the a.g.c. voltage will not "hang" properly. The audio is stepped up in T1, rectified in V2A, and the resultant negative voltage is applied to C2 (ignoring CR1 for the moment) to cut off V1B. Because of the voltage gain in T1, the voltage across C2 is considered to be more negative than that across C1, and V1B will not conduct again until C2 discharges through R2. As a result, the a.g.c. voltage will hang at a voltage proportional to the peak amplitude of the signal being received for a length of time determined by the step up in T1 and the time constant R2C2 (usually chosen to be about a second).

The voltage divider in the cathodes of V2A and V2B puts a back bias on these diodes and sets a threshold below which the a.g.c. will not operate. The actual values in this divider will depend on the particular receiver and the noise conditions on the band in use. It would be advisable to make the threshold adjustable temporarily, as shown in Fig. 2. After the a.g.c. has been in use for a while, a good compromise value could be determined and a fixed resistor substituted if desired.

IMMUNITY TO NOISE POPS

From the above description it is evident that a sudden noise peak will cause the a.g.c. to hang. Since man-made noise caused by electrical appliances or a v.f.o. swishing across the band can have a much higher peak amplitude than the signal being received, this will cause a one-second hole in the message before the a.g.c. returns to its normal operating point. The addition of a diode, resistor, and capacitor in the grid of VIB to correct this condition is shown in Fig. 2. The normal peak will affect only C2, but C2, but this capacitor is smaller by a factor of a hundred than the one normally used, the a.g.c. will only hang for about 10 milliseconds. The audio is fed to C3, but this capacitor must charge through a 1-megohm resistor and hence will not reach full voltage until several s.s.b. peaks, or at least 100 milliseconds on c.w., have gone by. When C3 is finally charged, CR1 conducts, placing C3 in parallel with C2, and the a.g.c. switches over to the full 1-second hang mode. Occasional pops will be filtered out, but a static burst, which would last but a few milliseconds, will cause the message anyway, will still cause the a.g.c. to hang for the full second. The values shown worked equally well with a 200-c.p.s. c.w. bandwidth or a 3-Kc. s.s.b. bandwidth. al-

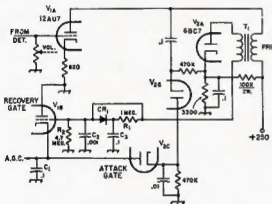


Fig. 1.—Audio "hang" a.g.c. modified for immunity to noise "pops." The circuit is the same as the original except for C2, CR1 and R1. All capacitances are in μF .
CR1—300-p.i.v. silicon diode.
T1—1:3 audio transformer.

CR1—200-p.i.v. silicon diode
T1—1:3 audio transformer.

Tl-1;3 audio transformer.

A slightly modified version of the hang a.g.c. system described by Luick¹ is shown in Fig. 1 and is typical of all circuits used. This particular version is audio driven, but circuits which obtain driving voltage from the i.f. amplifiers are quite similar. The important thing is that all selectivity precede the point at which the a.g.c. driving voltage is taken off. The systems work best when used with a receiver with good skirt selectivity and which recovers quickly when overloaded (that is, with a good receiver).

The circuit shown here works basically as follows: Audio is picked off the receiver volume control² and amplified

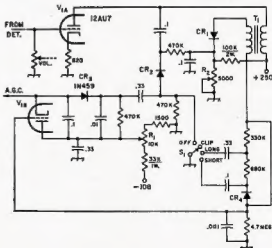


Fig. 2.—Further evolution of the a.g.c. circuit with "Sensitivity" (R1) and "Threshold" (R2) controls added. The function switch, S1, select 10-ms., 3-second and 1-second "hang" times.

CR3—High back resistance silicon diode. (1N458 or equiv.)

* Reprinted from "QST," December, 1955.

¹ Goodman, "Better A.G.C. for S.S.B. and Code Reception," "QST," January, 1957.

*Lulick, "Improved A.G.C. for Sideband and C.W.," "QST," October, 1937.

* If the audio becomes distorted when this connection is made, there is a clipping taking place in V1A and the audio take-off point should be moved closer to the detector. Two or three volts audio on a strong signal is more than adequate at the grid of this tube.

though if sideband only operation is contemplated, a resistance smaller than 1 megohm could be used. If the short time-constant mode is used alone, the circuit will behave like a clipper to keep ear-splitting signals in line while returning the receiver to full gain, when possible, to make sure that no weak signals are missed. The clipping introduces no harmonics on c.w. and very little distortion on sideband, consequently it is more comfortable to listen to than conventional audio clipping.

I.F. AMPLIFIER CONSIDERATIONS

The a.g.c. voltage comes on in a millisecond or less and will cause an irritating "thunk" when it comes into play unless the gain of the i.f. amplifiers can be changed at least as quickly. Unfortunately, the usual i.f. wiring is inadequate in this respect. The grids are decoupled from the a.g.c. line with large resistors and bypass capacitors;

cathodes may be grounded and the screens run off a stiff d.c. supply. Operating bias may then be obtained through the a.g.c. line (see below). This modification should also improve the cross-modulation performance of the amplifiers, although in present-day receivers most of the damage has been done long before the first i.f. tube.

ADDITIONAL MODIFICATIONS

I am presently using the circuit shown in Fig. 2 to generate the a.g.c. voltage. A switch to turn the a.g.c. off and to select various time constants has been incorporated, along with "sensitivity" and "threshold" controls. The negative 108-volt supply⁴ is an inconvenience, but if the cathodes are to be grounded some source of negative voltage will be required. As will be seen later, the supply is used elsewhere. The sensitivity control adds a fixed bias to the a.g.c. voltage and is best used if the threshold control is incorporated

volt supply. Now that the line can have some resistance to ground, the a.g.c. bus may be used for all sorts of auxiliary gain controls. Diodes CR-8 select the most negative voltage appearing at their cathodes and apply it to the a.g.c. line. Good muting for c.w. break-in with grid-block or differential keying is obtained by keying a 2N398A in step with the v.f.o. The base current divider on this transistor should be adjusted so that the transistor conducts when the v.f.o. is cut off and opens just as the v.f.o. comes on (this does not necessarily occur when the v.f.o. grid voltages goes to zero). If the station receiver has an output stage with the cathode resistor bypassed by an electrolytic capacitor, its cathode is a good source for the 6 volts or so required to cut off the transistor.

It is often desirable to operate the r.f. amplifier at full gain for all but the strongest signals. The circuit shown in Fig. 3 to apply delayed a.g.c. to the r.f. amplifier is nothing new, but it cannot be used without the cathode follower isolation stage. The 10-volt Zener diode worked with my receiver; if no more than two i.f. amplifiers are controlled, the value should be reduced to about 6.8 volts.

The S meter in the circuit as shown will indicate full scale with -24 volts on the a.g.c. line. It is possible to limit the maximum current by increasing the V3A cathode resistance, and to adjust the meter sensitivity by varying the resistor in series with the meter. If this is too much of a chore, the original "calibrated" S-meter circuit may be left intact and a new tube installed for V3.

FINAL CONSIDERATIONS

I would recommend that the a.g.c. circuit be built on a small chassis mounted inside the receiver cabinet. Shielded wire should be used from the receiver volume control to the grid of V1A; aside from that nothing is critical.

I have used one variant or another of this circuit with break-in c.w. over the last four years and am quite satisfied with the results, although the endless series of modifications has left the audio portion of my receiver a shambles! I hope that enough information has been presented above so that with a little experimentation one can come up with a hang a.g.c. system to suit his specific needs.

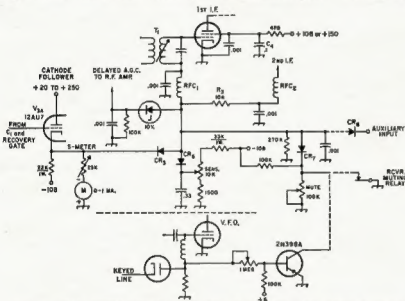


Fig. 3.—A cathode follower may be used to drive the a.g.c. line. This permits the use of additional circuitry for muting or break-in silencing. For example, the receiver can be muted by a negative voltage applied at "auxiliary input," by a "receiving muting relay," or by a negative voltage from the transmitter keying circuit applied via the 2N398A transistor. Delayed a.g.c. to the receiver r.f. amplifier is obtained by using a Zener diode. The time constants in the a.g.c. circuits have been reduced by substituting r.f. chokes for resistors (RFC1, RFC2).

C4—Audio bypass. May be omitted if screen voltage is stabilized.

CR8-CRB—Bargain silicon diodes.
R3—Grid filter resistor; omit if possible.

the result is a delay of as much as 1 millisecond between the time the a.g.c. is applied and the time it reaches the grids of the amplifiers. The response may be speeded up by replacing the grid resistors with small r.f. chokes and by removing any other resistors in the line. If instability resists, shielded wire, bypassed at strategic points, can be used for the a.g.c. bus. The cathodes and screens of the gain-controlled tubes are not normally bypassed for audio, causing poor performance while the gain is being changed. If popping persists on attack even after grid resistors are removed, the grids and screens should be bypassed with 0.1-μF. or larger capacitors, or better still, the

permanently into the receiver. Otherwise, the a.g.c. line may be clamped at some minimum negative value as shown in Fig. 2.

LOWERING THE IMPEDANCE OF THE A.G.C. BUS

A simple cathode follower will isolate the hang capacitor C1 from the a.g.c. bus as shown in Fig. 3. The old S-meter amplifier tube may be used for V3A since the meter can now go directly to the a.g.c. line. The plate of this tube must go to a stiff 20 to 250-

⁴ The negative supply need not be 108 volts, but it should be high enough that a full range of gain control can be obtained.

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All members of the W.I.A. are reminded that annual subscriptions are now due and should be paid promptly to their Divisional Secretary. Non financial members will not receive a copy of "A.R.," and back copies may not be available upon request. To preserve continuity of your files of "A.R.," please pay your annual subscription now.

1966 JOHN MOYLE NATIONAL FIELD DAY RESULTS

It was with anticipation that the Contest Committee altered the rules of this Contest in an endeavour to encourage more operators in to the field. The results show that approximately the same numbers participated as in previous years.

As most comments received, praised the rules, 1967 rules will only be modified slightly, by the possible addition of "cross mode operating is permitted."

The table of results has been produced from information gleaned from the logs, and is as accurate as possible. A well laid out front sheet, as required by the rules of all Contests is a great help to the Committee.

With the upsurge in s.a.b. activity, it was decided that if the power restriction was lifted, more stations would participate using s.a.b. transceiver type of equipment. Unfortunately this did not eventuate, as no increase in activity in this sphere was noted. Their non-participation was a sad reflection on their interest in s.a.b., and the money they spent buying portable transceivers.

Reported below are some of the comments attached to logs:-

VK1AAH/P and gang: "The rules are right on the ball, now for multiple and single operators."

VK2SS/P expresses satisfaction at the inclusion of a six-hour duration, and the rules and scoring are much what he desires.

VK2YB/P comments that the six-hour period suits single operators who do not want to camp out for the Contest, and that cross-mode operating should be allowed.

VK2JM/P makes many comments on the six-hour period, asks that cross-mode be allowed, and finishes off by saying that the Contest is a worthwhile one.

VK3AWI/P writes that they had nocturnal visitors to their site. Apparently some cows, or bulls, wandered up to their generator and commenced licking it. Perhaps they had been watching t.v. and had seen the ad: "Light up a . . ."

VK3HE/P states that he has always been a single operator in the Contest, and regards the six-hour period section an excellent move.

VK3RN/P writes on behalf of VK-3APC club members, who operated in various capacities and groups, saying that the power strike was the cause of a few minutes panic as the alternators to be used in the field were put in grave doubt as to their availability. He finished by writing that, as usual, they learnt a few more lessons, not the least being to check the petrol for water!

VK5WC/P writes how he enjoyed the Contest as much as any F.D. Contest, but was disappointed at the lack of fixed stations. He doesn't see why cross-mode is not permitted. Access to his site was over a severe, bumpy, rock-strewn track, eight miles of the Wirrappa-Pimba Road.

VK5ZF/P states: "New Contest rules are excellent, but registers a strong protest against the use of G.M.T."

An incomplete list (because of lack of information on front sheets of logs) of equipment in use for the Contest is as follows: Type 3, 522, home made, Swan 240, FL100B, ATR2C, No. 19, KWM2, Galaxy 5, Drake, NCX5, No. 122, Command, HRO, BC348, AMR300, Geloso, Eddystone, and Swan. Aerials in use were mostly ground planes on v.h.f. with Vee and long wires favoured for the h.f. bands.

Whereas the six-hour duration section was intended as a continuous per-

iod of operation, no penalty was imposed for other forms of time periods. Next year's rules will be clearer on this point, no doubt allowing any number of periods of operating totalling six hours.

As this is a Contest for field operation, this Committee will try various inducements in bringing out stations in to the field. If you would like to suggest a means of accomplishing this, the Contest Committee would be pleased to hear from you. —F.C.C.

TRANSMITTING RESULTS

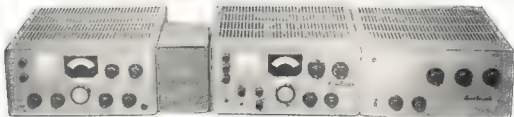
Call Sign	Section	Div. 6 or 34 Hr.	No. of Ops.	Equip. in Use	Power Input	Contacts	Pts.	Certificate For
VK2SS/P	A	6	1	H.B.	9	23	173	Low Pwr. Op./Pt.
4OF/P	A	6	1	Disp.	10	6	39	
5SS/P	A	6	1	Disp.	11	17	195	Low Pwr. Op./Pt.
6ZAG/P	A	6	1	Disp.	10	5	10	
7JF/P	A	6	1	H.B.	20	32	301	1st 6 Hr. Phone
2YB/P	B	6	1	Disp.	11	26	169	Low Pwr. Op./Pt.
2JM/P	B	6	1	Disp.	11	23	171	1st 6 Hr. C.W.
3HE/P	C	6	1	Disp.	5	26	153	1st 6 Hr. Open
4UC/P	C	6	1	Disp.	16	24	151	Low Pwr. Op./Pt.
3YS/P	D	6	2	Comm.	3/120/240	96	539	1st 6 Hr. Mul. Op.
3QZ/P	D	6	4	H.B.	6/10/15	38	206	Low Pwr. Op./Pt.
3RJ	E	6	1	Comm.	25	19	240	1st 6 Hr. Fix. Stn.
5PJ	E	6	1	H.B.	100	9	125	
5WC/P	A	24	1	Comm.	25	49	413	1st 24 Hr. Phone
6MM/P	A	24	1	Comm.	7	12	76	Low Pwr. Op./Pt.
7JO/P	A	24	1	H.B.	6	15	118	Low Pwr. Op./Pt.
2AGI/P	B	24	1	Disp.	7	57	403	1st 24 Hr. C.W.
5ZF/P	B	24	1	Disp.	15	33	265	Low Pwr. Op./Pt.
5ZF/P	C	24	1	Disp.	15	52	352	1st 24 Hr. Open
1ACA/P	D	24	6	H.B. Comm.	100	132	1206	
2AAH/P	D	24	8	H.B. Comm.		730	3969	1st 24 Hr. Mul. Op.
2GN/P	D	24	10	H.B. Comm.		196	1218	
2ATZ/P	D	24	8	Disp.	20	61	479	Low Pwr. Op./Pt.
3RN/P	D	24	14	H.B. Comm.		414	2649	
3AWI/P	D	24	10	H.B. Comm.		396	2170	
3AHZ/P	D	24	5	H.B. Comm.		287	1516	
3AAW/P	D	24	5	Disp.	12	42	286	
4CS/P	D	24	4	Disp. Comm.		112	805	
9XI/P	D	24		Comm.		96	583	
2AEC	E	24	1	H.B.		16	225	
2ZO	E	24	1	H.B.		5	65	
3XB	E	24	1	Comm.		71	905	Merit for working No. of Field Stns.
3ANG	E	24	1	H.B. Comm.	20/56	34	380	
3EF	E	24	1			28	340	
5NM	E	24	1	H.B.	30	9	125	
6KH	E	24	1			5	75	
7SM	E	24	1	Comm.		65	950	1st 24 Hr. Fix. St.

RECEIVING RESULTS

L2033	200	1st in Call Area	J. Ross (VK5)	880	"	"
L3229	895	"	L5015	465	"	"
L3042	755	"	L5085	310	"	"
K. Cunningham (VK4)	315	"	L6028	42	"	"
			L7031	905	"	"

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"The G.P.O. is opposite"

Phones: 60-1475--6-7

"Fifty and Over"

By ROY HARTKOFF

"Hello VK3ZFC. Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM calling you. This is VK3ZOM calling you. This is VK3ZOM calling you. Come in please. Over.

"Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM returning. Good evening, Bert. Very good signal here. Readability 5, strength 7. By the way you didn't give me a report. VK3ZFC, VK3ZFC. This is VK3ZOM listening for you. Over.

"Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM returning. The report's the same as last time, you say? And the time before. And the time before that? I suppose it would be, when you come to think of it. After all, we're only a mile away from each other, and I don't suppose the ionospheric conditions would vary much. Of course, I'm only new to radio and wouldn't really know. By the way, Bert, I notice you only say 'ZOM' and 'ZFC.' The instruction book tells us to use our full call signs with the 'VK3' in case someone in another State or overseas is listening. I think we should do what the book tells us, shouldn't we? VK3ZFC, VK3ZFC. This is VK3ZOM listening for you. Over.

"Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM returning. How far would I expect to get with a 6AK5 as a final on 6 metres? Well one never really knows, does one? There might be something in the ionosphere; or maybe the signal could bounce off a satellite or something. Though I must admit I don't seem to get out as well as I did when I was on higher power last year with the 8A6. When I had that I used to be able to talk to Dave, and he was more than six miles away. But at least I don't get very many t.v. complaints nowadays. After all, one must run one's station in the best traditions of radio communication, mustn't one? VK3ZFC, VK3ZFC. This is VK3ZOM listening for you. Come in please. Over.

"Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM returning. I must say, Bert, that I think your remarks were rather unkind. I know we're entitled to run 150 watts. I know that the t.v. set front ends are twenty megacycles wide and that the six metre band's only a quarter of a megacycle away from Channel zero sound, and that's why I have a 6AK5 for a final. But I'm sure the authorities have the interests of the Amateur at heart and they're doing everything they can to encourage Amateur Radio. After all, we're allowed to talk to each other as often as we like. Oh, that reminds me. Would you tell Jim that . . . oh, I nearly forgot. We're not allowed to pass on messages, are we. Never mind, I'll phone you as soon as we finish and tell you then. VK3ZFC, VK3ZFC. This is VK3ZOM listening for you. Come in please. Over.

"Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM returning. Really, Bert. You know the instruction book says we shouldn't use that kind of language over the air. And besides I'm sure they mean well and they're doing the best they can. Anyway, suppose we

change the subject. How is your Morse practice coming along? VK3ZFC, VK3ZFC. This is VK3ZOM listening for you. Come in please. Over.

"Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM returning. Yes Bert, I understand how you feel. We're not allowed to use Morse on the air until we've passed the Morse test of 14 words per minute and then of course we'd never use it anyway. It would be nice to be able to use some bond below 50 megacycles, but the book says we mustn't do that until we pass the Morse test. I suppose one could pass it if one gave up radio completely for a year or two, but I had to give up radio for five years to get my diploma in communication and if I give it away for another couple of years I'll forget all I ever knew about it. VK3ZFC, VK3ZFC. This is VK3ZOM listening for you. Come in please. Over.

"Hello VK3ZFC. Hello VK3ZFC. This is VK3ZOM returning. Oh, no, Bert. It isn't like that at all. The diploma course hasn't actually got anything to do with radio. We did lots and lots of things like maths and chemistry and applied mechanics and physics and even English. There was something about receiving. All bits and pieces. I didn't understand it much but I managed to get through the exam. Of course, it doesn't really matter, because as long as you've got a diploma you don't actually need to know anything. What's that? John wants me on the phone? I'm sorry, Bert, I'll have to go. John's on the phone. VK3ZFC, VK3ZFC. This is VK3ZOM saying thank you for a very interesting contact. 73 and hope to hear you again soon. This is VK3ZOM signing off and clear and VK3ZOM is closing down."

"Hello John. Bowling? Yes, sure. No, I wasn't doing anything. Just the usual talk with Bert. Funny chap. Seems to have a chip on his shoulder. Maybe it's because he takes radio seriously. Yes, I'll be round in five minutes. See you. Bye."

VS9MP, MALDIVE IS.



Stan Butlin commenced activity in October 1953. He runs 800, 40 and 20 m. Uses c.w. and s.s.b. Is on daily, mainly on 20 after 1200. Easy to pick by those calling him. Excellent op. and QSL is certain, via WICIN. Stan's home call is G2MRP. He is a member of F.O.C., T.O.P.S. and R.A.F.A.R.S. Equipment used is commercial product, the rx being SR200. Antennae, dipoles. DXCC almost 200. Main object of activity is to give all he can a QSO with Maldive Is. He will be returning to U.K. late this year. QTN is P1211850 Sgt S J Butlin Sgts Mess., R.A.F. Gun, Maldive I., R.F.P.O. 180, C. a. G.P.O., London, or via WICIN or C.S.G.B.

(Only other activity from this rare spot is the club station VS9MB.)

W.I.A. D.X.C.C.

Listed below are the highest twelve members in each section. New members whose initials have been amended will also be shown.

PHONE

Call No.	Cer. No.	Call No.	Cer. No.
VK3BMS	94	VK2JZ	51
VK3AHO	87	VK4HR	12
VK3RU	3	VK3ADE	53
VK3AB	43	VK3T	53
VK3EMK	43	VK3AAK	58
VK4FJ	21	VK3KW	4

Amendments:
VK3APK 54 201 VK3KS 8 184

C.W.

Call No.	Cer. No.	Call No.	Cer. No.
VK3BMS	10	VK3NC	19
VK3CK	25	VK3AHQ	79
VK3G	5	VK3ZO	4
VK4FJ	29	VK3ARX	68
VK3ADE	61	VK3RU	18
VK3AGH	71	VK3BS	70

New Members:
VK4UC 84 104

Amendments:
VK3YL 29 254 VK3APK 76 248
VK3TL 76 252

OPEN

Call No.	Cer. No.	Call No.	Cer. No.
VK3ADE	53	VK3NC	18
VK3AGH	63	VK3V	77
VK3RU	6	VK3HR	7
VK4FJ	32	VK3JA	42
VK3EMK	74	VK3T	53
VK3ACK	8	VK3APK	52

Amendments:
VK3KS 24 198



TECHNICAL ARTICLES

Readers are requested to submit articles for publication in "A.R." in particular constructional articles, photographs of stations and gear, together with articles suitable for beginners, are required.

Manuscripts should preferably be typewritten but if handwritten please double space the writing. Drawings will be done by "A.R." staff.

Photographs will be returned if the sender's name and address is shown on the back of each photograph submitted.

Please address all articles to the
EDITOR "A.R."
P.O. BOX 38,
EAST MELBOURNE, C2,
VICTORIA.

REMEMBRANCE DAY CONTEST, 1966

A perpetual trophy is awarded annually for competition between Divisions. It is inscribed with the names of those who made the supreme sacrifice, and so perpetuates their memory throughout Amateur Radio in Australia.

The name of the winning Division each year is also inscribed on the trophy and in addition, the winning Division will receive a suitably inscribed Certificate.

Objects

Amateurs in each Call Area, including Australian Mandated Territories and Australian Antarctica will endeavour to contact Amateurs in other Call Areas. In addition, Amateurs will endeavour to contact any other Amateurs on the authorised bands above 52 Mcs. (i.e., intrastate contacts will be permitted in the v.h.f./u.h.f. bands.)

Contest Date

0800 hrs. G.M.T., Saturday, 13th August, 1966, to 0759 hrs. G.M.T., Sunday, 14th August, 1966.

All Amateur Stations are requested to observe 15 minutes' silence before the commencement of the contest on the Saturday afternoon. An appropriate broadcast will be relayed from all Divisional Stations during this period.

RULES

1. There shall be five sections to the Contest:—

- Transmitting Phone.
- Transmitting C.w.
- Transmitting Open.
- Receiving Open.
- Transmitting Open—v.h.f./u.h.f. only.

2. All Australian Amateurs may enter the Contest whether their stations are fixed, portable or mobile. Members and non-members will be eligible for awards.

3. All authorised Amateur bands may be used and cross-mode operation is permitted. Cross-band operation is not permitted.

4. Amateurs may operate on both Phone and C.w. during the Contest, i.e., phone to phone or C.w. to C.w. or Phone to C.w. However only one entry may be submitted for sections (a) to (d) in 1. A separate entry may

be submitted for section (e) in 1. An open log will be one in which points are claimed for both phone and C.w. transmissions. Refer to Rule 11 concerning Log entries.

5. For Scoring, only one contact per station per band is allowed. However, a second scoring contact can be made on the same band using the alternate mode. Arranged schedules for contacts on the other bands are prohibited.

6. Multi-operator stations are not permitted. Although log keepers are permitted only the licensed operator is allowed to make contact under his own call sign. Should two or more wish

followed by call of the station they are operating, then the word "log" followed by their own call sign, e.g. "CQ Remembrance Day from VK4BBB log VK4BAA."

C.w.: Substitute operators will call "CQ RD de" followed by the group call sign comprising the call of the station they are operating, an oblique stroke and their own call, e.g., "CQ RD de VK4BBB/VK4BAA."

Contestants receiving signals from a substitute operator will qualify for points by recording the call sign of the substitute operator only.

7. Entrants must operate within the terms of their licences.

8. Cyphers—Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (C.w.) reports plus three figures, that will increase in value by one for each successive contact. If any contestant reaches 999 he will start again with 001.

9. Entries must be set out as shown in the example, using ONLY ONE SIDE of the paper and wherever possible standard W.I.A. Log Sheets should be used. Entries must be clearly marked "Remembrance Day Contest 1966" and must be postmarked not later than 15th September, 1966. Address them to "Federal Contest Manager, W.I.A., G.P.O. Box N1002, Perth, W. Aust.," Late entries will be disqualified.

10. Scoring will be based on the table shown. A bonus of 25 points may be claimed for the first contact with other call areas on each of the bands 52 Mcs. and above.

SCORING TABLE

		To									
		VK0	VK1-2	VK3	VK4	VK5-8	VK6	VK7	VK8	VK9	
From	VK0	6	6	6	6	6	6	6	6	6	
	VK1-2	6	1	2	3	5	4	6			
	VK3	6	1	1	3	2	5	4	6		
	VK4	6	1	2	1	3	6	5	4	6	
	VK5-8	6	2	1	3	1	5	4	6		
	VK6	6	1	2	4	3	1	5	6		
	VK7	6	2	1	4	3	5	1	6		
	VK8	6	1	2	3	4	5	6	1		
	VK9	6	1	2	3	4	5	6	1		

Note.—Read table from left to right for points for the various call areas.

In addition, all intrastate contacts on bands 52 Mcs. and above are worth 1 point each.

Portable Operation: Log scores of operators working outside their own Call Area will be credited to that Call Area in which operation takes place.



Remembrance Day Contest Trophy

to operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign. Such contestants shall be referred to as "substitute operators" for the purposes of these Rules and their operating procedure must be as follows:—

Phone: Substitute operators will call "CQ RD" or "CQ Remembrance Day"

EXAMPLE OF TRANSMITTING LOG

Date/ Time G.M.T.	Band	Emission and Power	Call Sign Worked	RST No. Sent	RST No. Rcvd.	V.h.f. Bonus	Points Claim.

Note.—Standard W.I.A. Log Sheets may be used to follow above form.

EXAMPLE OF RECEIVING LOG (VICTORIAN S.W.L.)

Date/Time G.M.T.	Band	Emission	Call Sign Heard	RST No. Sent	RST No. Rcvd.	Station Called	V.H.F. Bonus	Points Claim.
13 0610	7 Mc.	A3 (a)	VK8PS	88002	—	VK6RU	—	2
13 0612	"	"	VK8RU	88007	—	VK7EL	—	3
13 1035	82 "	A3 "	VK4ZAZ	50010	—	VK4ZDR	25	28
13 1040	"	"	VK4ALZ	50035	—	VK3QV	—	1

Note.—Standard W.I.A. Log Sheets may be used to follow the above form.

e.g. VK5ZP/2. His score counts towards N.S.W. total points score.

11. All logs shall be set as in the example shown and in addition will carry a front sheet showing the following information:—

Name Section

Address Call Sign

Claimed Score

No of Contacts

Declaration: I hereby certify that I have operated in accordance with the Rules and spirit of the Contest.

Signed

Date

All contacts made during the Contest must be shown in the log submitted (see Rule 4). If an invalid contact is made it must be shown but no score claimed.

Entrants in the Open Sections must show C.w. and Phone contacts in numerical sequence.

12. The Federal Contest Manager has the right to disqualify any entrant who, during the Contest, has not observed the regulations or who has consistently departed from the accepted code of operating ethics. The Federal Contest Manager also has the right to disallow any illegible, incomplete or incorrectly set-out logs.

13. The ruling of the Federal Contest Manager of the W.I.A. is final and no disputes will be discussed.

Awards

Certificates will be awarded to the top scoring stations in sections (a) to (c) of Rule 1 above in each call area. VK1 and VK8 will count as separate areas for awards. There will be no outright winner for Australia. Further Certificates may be awarded at the discretion of the Federal Contest Manager.

The Division to which the Trophy will be awarded shall be determined in the following way.

To the average of the top six logs shall be added a bonus arrived at by adding to this average the ratio of logs entered to the number of State Licensees (excluding Limited Licensees) multiplied by the total points from all entries in sections (a), (b) and (c) of Rule 1.

Average of the top six logs +

Logs Entered	Total of Points
State Licensees ×	from all Entrants
exclud. Z Calls	Sec. (a) (b) (c)

VK1 scores will not be included with VK2 nor VK8 with VK5.

Acceptable logs for all sections shall show at least five valid contacts.

The trophy shall be forwarded to the winning Division in its container and will be held by that Division for the specified period.

RECEIVING SECTION

(Section D)

1. This section is open to all Short Wave Listeners in Australia, but no active transmitting station may enter.

2. Contest times and loggings of stations on each band are as for transmitting.

3. All logs shall be set out as shown in the example. The scoring

table to be used is the same as that used for transmitting entrants and points must be claimed on the basis of the State in which the receiving station is located. A sample is given to clarify the position.

It is not sufficient to log a station calling CQ—the number he passes in a contact must be logged.

It is not permissible to log a station in the same call area as the receiving station on the m.f. and h.f. bands 1.8-30 Mcs., but on bands 52 Mcs. and above such stations may be logged, once only per band, for one point. See example given. VK1/VK2 and VK5/VK8 are considered to be the same area for scoring purposes.

4. A station heard may be logged once on phone and once on C.w. for each band.

5. Club receiving stations may enter for the Receiving Section of the Contest, but will not be eligible for the single operator award. However, if sufficient entries are received a special award may be given to the top receiving station in Australia. All operators must sign the Declaration.

Awards

Certificates will be awarded to the highest scorers in each call area. Further Certificates may be awarded at the discretion of the Federal Contest Manager.

TRANSMITTING OPEN — VHF/UHF ONLY SECTION (SECTION E)

Additional Notes

1. This section was introduced in answer to the request by many Amateurs that provision be made for participation by Limited Licensees and other VHF/UHF operators. It is in the nature of an experiment and because of this, logs entered for section (e) at this juncture, will not be considered in the determination for the Trophy winner. In the light of future experience, response to this section by those it is intended to interest, and comments from all interested parties, other additions and changes may be made.

2. All intrastate contacts in the bands above 52 Mcs. will count for one point. Interstate contacts will be valued as in the table for MF/HF contacts including the bonus 25 points for the first contact with each new call area.

3. Entrants may submit logs for one Transmitting Section other than (e) and interstate VHF/UHF contacts may be included in both logs.

4. Logs must be set out in the standard manner prescribed.

Awards

Certificates will be awarded to the highest scorer in each call area.

Note 1—The Federal Contest Manager emphasises the need for strict observance of Rule 9 in the Transmitting Section and Rule 3 in the Receiving Section.

Note 2—Note that the use of G.M.T. is required in accordance with Institute Policy to encourage the use of G.M.T. by Australian Amateurs.

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Cost	of photographic (fixed cost)		\$3.00
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Total			\$

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CENTRAL QUEENSLAND BRANCH DISPLAY

The display, set up by the Central Queensland Branch, in a Rockhampton shop window consisted of items of radio equipment ranging from a replica of the first radio valve ever produced to the latest communications equipment. Trophies, Certificates and awards won by local members were also displayed.

Block by courtesy of Rockhampton "Morning Bulletin"



BOEING DEMONSTRATES METEOR-BURST COMMUNICATION

Oceanographic Data Relayed with Help of Meteor Trails

A transmission system which hitches a ride from falling stars has been successfully demonstrated by The Boeing Co., Seattle, Wash., from the location of an underwater mountain in the Pacific Ocean. Known as meteor-burst communication, the system transmits data by bouncing radio signals off trails left by meteors entering the earth's atmosphere. It was designed by the Boeing anti-submarine warfare systems organization as a communications link for an oceanographic research programme conducted by the University of Washington.

In tests from Cobb Seamount, located 315 miles west of Grays Harbour, Wash., and 440 miles from Seattle, meteor-burst signals were received at Inglewood Research Site, near Issaquah, Wash., a total line-of-sight distance of 450 miles. System range is approximately 1,000 miles, according to Paul Pfeueger, Boeing Aero-Space Division A.S.W. Systems Manager.

Millions of meteorites enter the earth's atmosphere daily, burning up quickly through air friction. As this occurs, an ionised trail is left which dissipates rapidly and eventually is absorbed in the ionosphere. The meteor's

trail above the ionosphere is the basis for the communications system developed by Boeing. Use of meteor trails to transmit data offers the advantages of greater stability and control of the radio signal, according to Pfeueger. Unlike the ionosphere, which is used for conventional radio transmission, meteor trails are affected little by sun spots or other interferences which can cause signal fadeout and static. A signal bounced off of a meteor trail continues along a more direct path than a signal reflected from the ionosphere. Most meteor trails exist only for fractions of a second over an extremely small area and this trail does not offer a multiplicity of reflected pathways as does the iono-

sphere. Another major advantage is that the equipment operates at low power and on v.h.f., thus avoiding the crowded h.f. bands.

The Boeing-designed system has a land-based, master control station. In operation, the station sends a probe signal skyward, seeking a meteor trail at the proper angle to reflect the signal downward to the ocean-based "slave" station. The reflected probe activates ocean surface and sub-surface measurement instruments which then transmit stored-up data using the same meteor trail as the probe signal. Boeing engineers have found that a frequency of 50 Mcs. provides the best equipment performance.

From "Frequency," July, Aug 1965.

STANDARD STATIONS RECEIVED IN FAR EAST.

Frequency	Call	Emission
9,890.0	RTA	1-sec. and 0.1 sec. pulses.
10,000.0	RES/RMW Moscow	Carrier, 1-sec. time ticks; alternates carrier only.
10,004.0	RID	Carrier, 1-sec and 0.1-sec. pulses; alternates no carrier, 1-sec. pulses with longer pulse on minute.
14,992.0	(RES/RWM)	1-sec. and 0.1-sec. pulses.
15,000.0	RES/RWM	Carrier, 1-sec. time ticks; alternates carrier only.
15,010.0	(RES/RWM)	1-sec. pulses.
20,000.0	BPV	Carrier and 1-sec. ticks.
20,008.0	Tientsin, China	Carrier, 1-sec. and 0.1-sec. pulses; alternates no carrier, 1-sec. pulses with longer pulse on minute.
21,800.0	RID	1-sec. and 0.1 sec. pulses.

From "Frequency," July/August, 1965



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Output Impedance—ohms	40	15	15	15	8	8	600
Supply Voltage—volts	9	9	9	9	12	9	9
Typical distortion %	2	3	3	3	3	3	1
Frequency response	300-15K	200-12K	200-12K	200-12K	50-12K	50-12K	20-20K
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A. Federal President's Annual Report

Gentlemen! It gives me considerable pleasure to present this report to the Federal Council on the occasion of the 20th Federal Convention of the Wireless Institute of Australia.

In this report, covering the period from April 1966 to March 1967, I shall convey to you a comprehensive survey of your Executive's activities and to generally summarise the names and names of persons pointing out, as it proceeds, some of the major obstacles the Amateur Service is likely to meet in the years ahead.

Let me say to some of you who recall from last year's Convention that Mr Harold Hepburn took office as Vice-President and Mr Kevin Connolly as Treasurer, joining Mr Peter Williams (Secretary), Alfred Seedman (Business Manager), Bill Mitchell (Communications Manager), David Rankin (Public Relations and Contest Liaison Officer), and myself as Chairman and President.

I would first like to pay a tribute to the exemplary team spirit which prevailed from the commencement of the year's work. Following justifiable criticism on the protraction of time in producing the official minutes from the previous year, the Executive has endeavored to work with concerted energy and with the assistance of clear tape recordings of the proceedings, to complete the minutes within 15 minutes within weeks of the conclusion of the Convention. This same co-operation and drive has been maintained throughout the year resulting in "getting things done" within the time imposed on people who give of their spare time in an honorary capacity. In return the Division did not defer in ratifying the minutes and matters arising from the minutes have been attended to.

One of the most urgent projects undertaken by the Executive of the Federal Council of the W.I.A. in many years has been the almost completed handbook for Operators of Radio Stations in the Amateur Service.

The Federal Council is aware that such an undertaking was not on the Executive's work schedule. The task was in fact self imposed because the Executive was most unhappy with proposals received from the Central Office Postmaster-General's Department by which certain amendments, additions and deletions were to be made to the Handbook for Operators of Radio Stations in the Amateur Service. The amendments and deletions lodged at the highest necessary level resulted in the full co-operation of the Department's representatives.

It is not my intention to bore you with the mechanics by which this was accomplished. The project was administered by the services of Michael Owen VK3EZO, who with assistance in the mails from Harold Hepburn, Neil Penfold and Kevin Mitchell, expended scores of hours in a conscientious effort on the work involved.

I was able to attend a number of the meetings of the Executive and to do so in the intelligent and intellectual manner in which the vast problem of this re-write was undertaken. The project was administered from the commencement and when drafts were finally exchanged between the Department and the Executive, the latter was in an almost complete unanimity of thinking and was leaving a mere handful of problems at which both parties agreed to have another look. As the time for writing this report draws near, the meeting has been completed resulting in the resolution of all but one or two of the remaining problems. I am confident this will be resolved to our satisfaction in the near future.

It is true to say that we have not achieved the results we most ardently hoped for in this re-write. There has been the necessity to give a little as well as take but the nett result has been the removal of many of the ambiguities and unrealistic demands which have "bugged" the Amateur Service for many years.

The most notable outcome of this project has been the unanimity of thinking which has prevailed. It has required a great deal of tact and diplomacy to bring the various parties to a common agreement and I believe it sets an example to our own internal organisation. If by mutual trust and understanding of each other's problems a project such as this can be so efficiently completed between a Government Department and this Institute, then I feel strongly that the more important problems which we face will prevail in our own deliberations on the major matter of Federation. If each of two or three more parties tried to see the other's view and are not prepared to give and take with trust and understanding then I believe that the final solution to a problem can never prevail.

In concluding this section of my report I would like in record my personal thanks to Michael Owen in particular, and to the other members who so ably assisted in the re-write of this Handbook. Not to Michael Owen and his flexible operating rules for the Australian Amateur but we have achieved a personal liaison with our own Administration which has never before been achieved.

As I have mentioned Federation of the Institute I would like to also record at this stage the personal thanks to Michael Owen and John Battick who, under co-optation by the Executive, gave up a week-end of their time during the year to assist in the re-write. I would like to personally explain certain details of the proposed Federal Constitution which were in conflict with the M.S.W. Division. I believe some degree of success has been achieved and I am hopeful that the remaining problems will be resolved during the course of this Convention.

As far back as I can remember there have been a number of instances where individual and/or individual Amateurs to obtain approval from the Department to engage in some activity which currently is not covered by the general regulations under which the Amateur Service operates, or to bring about some change in existing regulations. I have never known of a kind or another. Such direct action has generally resulted in a refusal and by the time the matter has reached Executive level a deal of damage has been done. I believe the Executive has at times been placed in an embarrassing position.

During the year several matters were attended to by the Executive at Central Office level which could have saved a deal of wasted effort and frustration. I would like to mention to the Executive in the first place. I mention in passing the permission to operate unattended v.h.f. beacon stations, a specific permission to use a transmitter for power for the purposes of moonbounce experiments and permission for Amateurs within the boundaries of the Commonwealth to use other than the Woollahra Radio Club station.

Whilst I agree that Federal Councillors can hardly be held responsible for direct action by an individual Amateur, I do lay the blame on the Federal Councilor if he permits his members to be represented directly on matters of this nature.

I would therefore again stress most strongly that this type of problem be directed to your Executive. I would like to see a motion for its existence, to speak for the Amateur Service at the proper level. Too often the local administration is used and the Executive is reached at Central Office level and, in any case, consider they have no power to make a decision in the applicants' favour so they say "No".

The Youth Radio Scheme has continued to progress to the point where it may be considered too large to handle under the existing conditions. It appears to me to lack necessary Federal co-ordination.

However, the scheme is doing an immense amount of good with young people and many students have passed and received the various certificates and diplomas. I would like to see the privilege of presenting trophies to two of the first blind candidates to pass the elementary examination at the Victorian Institute for the Blind, and to the first blind candidate to pass the examination at the Geelong Park State School.

I believe the Y.R.S. to be one of the most powerful influences in which the Institute should participate. It is a most noble and humanitarian service in interesting young people in a hobby but it is also serving a most useful purpose as a section of the normal educational system.

October, 1965, saw yet another more popular than ever "Scout Year" and, for the year dedicated to the United Nations, the International Co-operation Year to celebrate which the Postmaster-General's Department issued a 2d commemorative stamp.

Many more stations participated in this event than ever before, indicating not only the interest in Scout activities but also the interest Amateurs are taking in fostering scout activity in our field of communications. The rapid increase in the first annual event and record here the thanks of the Institute as a whole to all those Amateurs who opened their shack doors during the week-end of October 16 and welcomed a group of scouts and encouraging their interest.

I am pleased to report a great improvement in the conduct of the Federal Contests under the control of the Federal Contests Manager, Neil Penfold. The VK6 Division are also commencing to provide a more active Federal Contests Committee on behalf of the

Federal Council and I record my personal thanks to the members of the committee for a job well done, and also to David Rankin from the Executive who acted as liaison between the Headquarters of the Executive and resulted in particularly smooth operation of an Institute activity which can only be classified as a difficult and time consuming one.

Finally, I would like to mention contest participation. Operation in contests is a valuable training ground for Amateurs who might at some time be called upon to serve in the communications branches of the Australian Defence Forces. This facet of training is one of the claims most radio societies uphold as a strong reason for maintaining an Amateur Service together with other activities such as civil defence.

If we are losing participants I believe we should take a look at the situation to find out why. Are we tired of contests? Are there too many contests? Are our contest rules too complicated? Is our publicity not good enough? Or is it that we just can't be bothered?

Whatever the reason I believe corrective measures should be taken to increase activity and not only is it training ground for national purposes but it provides band occupancy, a matter which concerns all countries concerned. It is a matter which should be assisted materially in the preservation of our frequency allocations.

As there have been no major disasters during the past year, the Wireless Institute Civil Emergency Network organisation did not have a spectacular year. The VES network was used to a degree during the year and this year the network did, however, operate a simulated emergency in conjunction with the M.S.W. Division and otherwise conducted practice operations.

Emergency network organisation is one of the most valuable opportunities the Amateur Service has of demonstrating its worth in the public service, and I therefore cannot stress enough the importance of maintaining these services ready for use. The network is called upon for assistance, whenever and wherever an emergency may eventuate.

The Federal QSL Bureau Officer, Ray Jones, and the Federal Award Officer, Alan Kline, have contributed of their time in their usual efficient manner. Reports from these two officers will be reported in the next issue.

The Federal Historical Records Officer has also provided a short report and it is encouraging to know that some of the backlog of material have been compiled. However, there must be a lot of old material which could be made available to the Executive to assist in writing the history of the Institute. Federal Councilors to keep the historical records in mind when moving among the members of their Division. Any valuable documents will be returned to the sender if so desired.

You will recall from the December, 1964, issue of the Magazine that an offer from the A.R.R.L. Headquarters had been accepted to all member societies of the I.A.R.U. to handle individual subscriptions to the Magazine "QST" previously handled through commercial agencies.

After obtaining clarification of certain aspects, it was clearly the intention of the A.R.R.L. Headquarters that either the W.I.A. undertake the work involved or it nominated an agency. After careful consideration, the Executive unanimously decided to take up the offer and Mr. Alf Seedman agreed to accept responsibility of the undertaking. From the Treasurer's report and the amount of mail and a small profit accrued by way of commission on each subscription. This was made available to the A.R.R.L. office for operational addition to a reduced cost of the publication to the subscriber.

As a result of writing this report some 400 subscriptions have been handled and this figure is increasing each month. I would like to record my thanks to Mr. Seedman for the time and effort he has expended and to suggest to the Federal Council that the Divisional Councils encourage members to place their subscriptions with the A.R.R.L. for the benefit of the lower subscription rate available to them.

One vital matter in any club, society or institution is its membership. This is the lifeblood of the organisation without which it cannot function. Although not spectacular, I cannot stress enough the importance of the figures available there has been a modest increase in membership in all Divisions with the exception of the VES Division. At the end of the members over the period February, 1965, to February, 1966. The following are the membership figures for each Division and are compared with the total

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license listings taken from the 1968 issue of the Australian Radio Amateur Call Book. The comparison is listed for the period 1964 to 1968.

	1964	M L	1965	M L	1966	M L
N & W	1172	1485	1228	1564	1277	1679
Victoria	1431	1882	1448	1888	1533	1933
Queensland	433	501	511	543	547	640
S. Australia	947	945	914	912	941	980
Western Australia	344	361	361	361	361	361
Tasmania	194	154	200	170	213	181
Total	3270	4003	3566	4086	3740	5003

The licensee (L) tabulation above couples VK; with VK3, VK6 with VK3, VK8 with VK4 and VK8 with VK3.

Of the total of 5083 licenses now issued in the Commonwealth it is interesting to record the comparison between full and limited licence holders:-

	Full	Limited	Total
New South Wales	1291	348	1639
Victoria	1100	390	1538
Queensland	499	540	1040
South Australia	498	386	884
Western Australia	344	240	584
Tasmania	187	54	241
Total	3909	1274	5083

From the above figures it will be noted that the limited licences comprise near enough to 25% of the total licences issued. I believe this is due to the fact that the majority of the direct concern of the Federal Council of this Institute. If the decline of applicants taking the more costly rate for the "full sector" proceeds at its present rate, it can only be a grave danger ahead for the future retention of the bands between 3.5 and 30 Mcs.

The financial position of the Executive is proposing to have printed for general circulation is the subject of an agenda item later on the agenda. The sample of the pamphlet is designed to interest people in taking up the hobby of Amateur Radio and may have little effect on the ratio of limited to full licences. I believe, therefore, that the Divisional Council should vigorous campaign to encourage the holders of Z calls to take the more costly rate.

From the previous figures there is a noticeably lower percentage of members enrolled in the two largest divisions compared with the other two for those states. I am aware that the latter divisions have more difficulty in enrolling licensees than do the smaller divisions but I cannot say whether this is a problem. As the Division has said, "that a sound progressive programme of recruitment is a constant necessity." It is my hope that every Amateur in Australia is to be achieved.

I would like to record here my personal thanks to Major Bill Mitchell for the statistical membership records he has maintained for many years and from which the aforementioned figures were extracted.

The financial position of the Executive is considered to be quite satisfactory although a over surplus is evident in the Income and Expenditure Account for the year ending February, 1968, completed with the previous year.

This lower surplus has been caused by an increase in general and incidental operating costs. Such increases are inevitable if the Executive is directed to carry out its functions within the capacity of its officers' available spare time. Over the last twelve months, for example, the Executive has been faced with the side-spying services for the submissions to the P.M.C. in relation to the re-write of the Handbook, and an increase in the cost of the Youth Radio Scheme have cost more in order to operate more efficiently, costs of co-ordinating these two functions under the Federal Council have brought about a quite substantial increase and overall a sharp increase in postage has been inevitable.

Over the last twelve months, the Executive's funds and in general this has been the source for payment of the increases with part subsidy from Executive's publication and other activities. Accruals and profits from other sources, other than per capita is not proposed at this stage in request any further increase in per capita payments from Divisions. Nevertheless, the Federal Council realise that it is going to direct its Executive to undertake increased productive activity, and this has been evident as the Institute has grown, then it must provide the finance.

The future of the Amateur Service all over the world is far from being secure. The Divisional Councils and shall look to the future and towards the conclusion of this report. At this stage it is pertinent to remark that the Institute is not in a position to guarantee the future that it currently holds if it is to successfully represent the Amateur Service in the Australian section of Region III.

For this reason I believe that the funds the Executive has accrued by its trading activities should not be spent on increased costs of administration, but on "growth" funds for major future projects such as Region III conference of I.A.R.U. Societies, attendance at possible Regional Conferences of the I.T.U. and other activities of this nature.

The statistics kept by the Executive show that the licensee figure has doubled itself over the past five years. This is a very good sign. The figure has increased at a steady rate of approximately 200 per year. On this basis we can reasonably expect that the figure will be 10,000 by 1975. A novice license could cause a steeper gradient on the graph as had the introduction of the limited license in 1954. Whatever happens, the Executive must be considered, will require much larger funds than are available today.

I would like to thank to Kevin Connolly for a job well done as Treasurer, particularly as he is not an accountant. The books are in excellent order and steps have been taken for a certain change designed to simplify our previous system at audit time which is the busiest time of the year for the Treasurer.

At this Convention the Federal Councillor will receive copies of "The Geneva Story." This has been protracted project but has taken the Executive considerable time. It is a story from a huge pile of Geneva documents sent back by the late John Moev in 1968.

There has been no immediate way for the Executive to obtain a copy of the I.T.U. rule guide to future W.I.A. representatives attending conferences dealing with regulations and frequency assignments, and as a valuable reference in the Institute's literature. The Divisions do not own their own premises I would ask the Federal Councillors to retain these in the Executive's name. I would like to see on incoming officers to be held as Federal property. Major Bill Mitchell is to be complimented for his extremely arduous project without assistance.

Following on the 1965 Convention a sub-committee was formed, comprising Michael W. and myself, to study and report on the fully the workings of the American F.C.C. organisation in relation to the system used in Australia by the Postmaster-General's Department.

Copies of relevant documents were obtained from the U.S.A. and one meeting was held to consider a very detailed report. It was decided that this activity had to be "shelved" for the time being because the re-write of the Handbook of necessity, was a priority. The programme will be taken up again later.

Activity by Amateurs on all bands appeared to have shown an upward trend other than in contest participation. This is probably due to the fact that the conditions in the "rough" are reported to be climbing out of the "rough". As history-making events have taken place in the past, I would like to confine myself to reporting a few of the records achieved over the past year.

There have been many interesting number of 144 Mc contacts across the Tasman Sea, Sydney stations in particular finding 2L contacts to be now somewhat routine. However, the first recorded contacts have been made between VK3 (Melbourne) and 2L3 and between VK3 areas during December, 1965. Final details are not available.

The V.H.F. distance record on 433 Mcs. was broken during the year, contact being recorded between VK3 (Melbourne) and VK3 (Sydney) and VK3 (Launceston), a distance of 313 miles.

The first 1296 Mc working was recorded during January between VK3JB 3 and VK3IA/VX/3 over an approximate distance of 3 miles.

This year witnessed the completion of two certificates for the I.A.R.U. World Cup for the SWL DXCC Award and the Heard All VK Call Areas (HAWKCA) Award. After having been in the hands of the Council for a while at the delay in producing these awards it is somewhat disheartening to find that to date only two applications have been made for the DXCC award and one for the HAWKCA award. Federal Councillors could instruct Councils to give this matter some publicity in local bulletins. I would like to see the Council looking for looking after this aspect of Institute activities.

No report would be complete from this Executive without particularly mentioning the work carried out by the Federal Secretary Peter Williams has done an admirable job this year. I am sure that the Executive will agree with me when I say that it would be some years since it has been so promptly and efficiently handled. I am going on within the Executive administration.

The Institute is growing too large to operate much longer at Federal level with time donated by the Executive Council. I would like to see, in particular the secretary if the Federal Council expects its Executive in this day and age to undertake the urgent

projects of the future, and I have referred to some of these previously, then I believe it must accept with some concern the responsibility of finding the resources to have its Executive function in accordance with current requirements.

The Publications Committee continued its usual efficient team work in publishing "Amateur Radio," which changed to a more modern format during the year. It was interesting to find that the magazine received critical in the R.S.B. publication which reprinted a couple of original V.C. circuit developments with technical descriptions.

I would like to record my appreciation of the immense amount of work carried out in the continuing high quality of the magazine. The Editor and his sub-subscribers of articles are also to be commended for their honorary work.

The Postmaster-General's Department has expressed its concern at the high failure rate of applicants sitting for Departmental examinations. This failure rate includes applicants for Amateur certificates.

This appears to me to somewhat downgrade the Institute training courses, if indeed it is instituted. I would like to see the Divisional Councils look into the matter on return to their home states.

In the future that the Department intends to hold examinations twice yearly by which means they consider applicants will be able to study and the failure rate should therefore decrease.

After several requests, the Executive has now been supplied with a copy of the "Proposed Australian Table of Frequency Allocations" - 10 Kcs. to 40 Kcs. - prepared by Sir Kenneth G. Macdonald, Australian Frequency Allocation (Space Service) Committee.

During the year arrangements were completed for the Postmaster-General's Department and the Department of External Affairs for reciprocal licensing conditions for Australian and U.S.A. Amateurs. Similar arrangements have been made with the United Kingdom.

We are indebted to the Hon. Alan Fairhall, New South Wales Minister for Transport, for the Australian-American agreement.

In reply to the Executive's request for Divisional Councils to send representatives to the W.I.A. I.T.U. Representative three people have now offered their services and such will be given consideration. At the time of writing this report, the Divisional Councils. The Executive anticipates the completion of its decision early after Easter.

At this time, I would like to mention briefly some reports of the international scene.

As far back as 1959 I mentioned in reports published in "Amateur Radio" and in tape recordings played over Divisional stations some details of the commercial pressures for frequency allocation. I mentioned that the Executive anticipated the completion of its decision early after Easter.

At this time, I would like to mention briefly some reports of the international scene. As far back as 1959 I mentioned in reports published in "Amateur Radio" and in tape recordings played over Divisional stations some details of the commercial pressures for frequency allocation. I mentioned that the Executive anticipated the completion of its decision early after Easter.

There are now 118 governments which take part in the I.T.U. meetings of frequency allocation conferences and each one has an equal vote. Currently there are only 64 I.A.R.U. societies in the world. The Executive is aware of the fact that only one-half of the countries who cast a vote in the I.T.U.

Mr. Peter Hoover goes on to say therefore that the solution of the problems facing the Amateur Service . . . "Will require close co-operation between Amateur Societies on a world-wide basis. It will require the ingenuity and resourcefulness to the utmost."

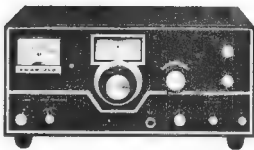
It is obvious to those who care to keep in contact with the I.T.U. scene that the international scene is rapidly changing. The I.T.U. is undergoing reorganizational changes as a result of the 1965 World Administrative Radio Conference (WARC) held in Geneva in 1965. The date of the next Radio Conference is unknown although the next Plenary Conference is due to be held in Geneva in 1971. It is highly probable that there will never be another conference as there was in Geneva in 1947. The I.T.U. is moving towards a more international, more likely there will be smaller Regional Conferences dealing specifically with particular related frequency allocation spectrum. The Radio Allocations (Space Services) Conference in 1963 was an example of this.

(Continued on Page 21)

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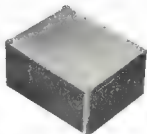
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CONTEST CALENDAR 1966

4th/5th JUNE—CHC/FHC/RTH QSO Party.
2nd/4th JULY—Venezuelan Independence Contest (Phone only).
8th/10th JULY—R.S.G.B. 1.8 Mts. "Summer" Contest.
18th/14th AUGUST—Remembrance Day Contest.
10th/11th SEPTEMBER—WAE Contest (Phone Section).
1st, 2nd OCTOBER—VK-ZL-Oceania DX Contest (Phone Section).
8th/9th OCTOBER—VK-ZL-Oceania DX Contest (C.W. Section).
15th/16th OCTOBER—R.S.G.B. 21/28 Mts. Telephony Contest. (Note date for this contest has been changed from that originally advertised.)

appeal is addressed to club leaders or secretaries to send news to 1st me! (Selfish!), (b) Newsletter Editor Jim Webster at Birrong High and/or Rex 2YA—it would be good training for the boys. The VK3 Division officials still support Y.R.S. in many ways such as the presentation of prizes to Greg, Dunne and Ernie Chalker (first PG member to get L.A.O.C.P.). Y.R.S. strongly supports the Division with 30 new members from its ranks in four years.

We are proud of a group here at Canberra Radio Society that has for Elementary and all six obtained Honours with over 90%. One has pressed on hard and we are watching for an A.O.C.P. result. New clubs are developing at Canberra High (re-former) and Denko High, while Lynneham, Narrabundah and Canberra Radio Society continue 73, Ken IKM.

ICC Form A-6
February 1965

UNITED STATES OF AMERICA
FEDERAL BUREAU OF INVESTIGATION
Washington, D. C. 20534

PERMIT FOR AMATEUR RADIO LICENSEE TO OPERATE IN THE UNITED STATES,
its Possessions and the Commonwealth of Puerto Rico

JAMES RUSSELL GODING
51 BAY VIEW DRIVE
SHREWSBURY, MASS. 01546

Effective date of this Permit: JANUARY 12, 1966

This Permit Expires: SEPTEMBER 2, 1966

The above-named alien is hereby authorized to operate the following described amateur radio station in the United States, its possessions, and the Commonwealth of Puerto Rico:

Licensee or Serial Number	Licensing Country	Call Sign	Expiration date
13429	AUSTRALIA	VK 3 Z G G	SEP 2, 1966

Operation under this permit must be in accordance with (1) Current International radio regulations; (2) the terms and conditions of the bilateral agreement for reciprocal amateur radio operation between the United States and the Government of Australia; (3) the United States; (3) Subjects A through E and G of Part 97 (Amateur Radio Service) of the Rules of the Federal Communications Commission; (4) the terms and conditions of the license issued to the alien by his government; and (5) the special conditions (if any) set forth in this permit.

This permit may be amended, suspended or cancelled by the Commission without advance notice.
SPECIAL CONDITIONS: OPERATION LIMITED TO PRIVILEGES OF UNITED STATES TECHNICAL CLASS (SECTION 97.7(d)) AND FURTHER LIMITED TO MAXIMUM TRANSMITTER INPUT POWER OF 150 WATTS AND TELEPHONY ONLY.

FEDERAL COMMUNICATIONS COMMISSION

Ben F. Wright
Secretary

Above is a reproduction of the Amateur Radio License issued to Jim Goding VK3ZGG by the American Authorities.

HIGGINBOTHAM AWARD

W.I.A. PRESIDENT'S REPORT

(Continued from Page 19)

The Publications Committee had great difficulty in reaching a decision as to who should be the recipient of the Higginbotham Award for 1965, and for this reason the announcement was delayed to give the committee extra time to consider the matter.

As the committee could not separate two contributors, it was agreed to share the Award between Mr. J. R. Cox VK6NJ for his work "The History of Communications" and Mr. P. M. Williams VK5NN for his contribution on single band equipment.

The awards have been sent to both gentlemen.

Herbert Hoover, Jr., speaking on the principal problem of I.T.U. conferences dealing with Amateur frequency allocations pinpoints the most important aspect when he says: "If we fail to meet the problem of protecting our allocations, there will be a very serious loss of interest in International Amateur Radio as we know it today."

As Federal President of this Institute I am more than happy to know that the I.A.R.U. is moving in defence of the Amateur Service in this way, and it behooves this Institute to back the I.A.R.U. effort with everything it has.

To form a permanent liaison committee or working group to maintain close contact with the Federal Communications Department. This Committee to be composed of members with special experience in this field.

To convene within the next two years a conference of Region III Amateur Societies.
To finance our representative to attend Region I and Region II I.A.R.U. conferences.

President Hoover concludes: "...In my opinion the survival of Amateur Radio, as we know it today, will depend upon our individual effort in the immediate future. There is no time to spare!"

Executive has already received a long report from the W.Z.A.R.T. on the issue of holding a Region III conference. An invitation which unfortunately we had to turn down at this stage, was received from Mr. John Clark, General President of the Region I Bureau of the I.A.R.U., inviting the W.I.A. to attend their conference to be held during May, 1966, at Opatitz in Yugoslavia.

I leave this matter with the Federal Council for its deep consideration. It is the W.I.A. to play its rightful part in Region III.

In closing I record my grateful thanks to members of Executive, the Federal Council and Divisional Councils for the time they have devoted to conducting the affairs of the Wireless Institute of Australia for and on behalf of the Amateurs of Australia.

G. M. Hall, Federal President W.I.A.

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DX

Sub-Editor: ALAN SHAWSMITH, VK4SS
38 Whymot St., West End, Brisbane, Qld.

Conditions at present appear to be a little slack or maybe it is lack of activity generally. During the winter months things quieten down, but on the local scene. However, openings are being reported on 38 Mhz.

NOTES AND NEWS

Trucial Oman: MP4TBO Roger QRV 14.196 around 2200z. Call 8-10 up.
Qatar: VESAFB, VESQSH, VSEHRV, VSEFVR all will be active from here soon.
Ceylon: 4571W fan on daily from 0130z. Listen 14.135.

Reckall Is.: One day activity only is expected to take place from this spot in early June. No other information available.
Aland Is.: O50NF 14.241 at 1830z or later.
French Somaliland: FLARA still going strong. 14.048 1100z QSL WJLJK.

Algeria: TX2AH 14.250 1800z. QSL VESEUU. Also on is TX2AH 14.217 and A1 mode. QSL WA4STL.

Seychelles: VQREF 14.343 1900z and Tnd, VQ7TC 14.320 2200z.
Sierra Leone: Peter WJLHK operates around 14.258 2200z. QSL VEOXK.

East Caroline: KCRBW works 14.255 around 1530z.

The above by courtesy of LIDXA.

Gibraltar: ZB2AP is a R.A.P. Club station and active daily using a.m. 14.210 1730z onwards.

Small Rep.: 801AU Smitty is active again. He hopes to operate soon as JY1AU and Y1ZAU. More information if it comes to hand.

Falkland Is.: VPEHD and VPHJ both working 14 c.w. QSLs VPEHD—G3PEK, VPHJ—W2CTN.

La-Land: DLFTT will not make this trip as planned earlier.

See Theme: CRSSP now has s.a.b. rig and can be found on 14.100 Zed. 2100z.

The above by courtesy of AIRWAVES G3GTG. Station: ST1BSB on 14.324 2100z. QSL U.S. Embassy, Khartoum.

Gawah Is.: S.a.b. equipment is being shipped to ZDDBE. He can also be heard on c.w. 20 m.

Alghanistan: YALAW is heard occasionally around 14.200. Try listening at 1300z.

North Borneo: SM8AP and one or two others are QRV both s.a.b. and c.w. 20. SM8AP's QSL goes to CITEZ.

Deserches: Proposed trip by VQ0HD is now reported off.

Tasalia: PTUW will attempt to put a signal out from here early June. Says he cannot as yet have a permit. Mode s.a.b. mainly 20.

ACTIVITIES

Ken VK7TL reports working these choice ones on 20 m: CP5AD, F5UC/FC, G3GHT, G3JENK, G4WZG, HBABBS (Ilechemstein), H3HAP, IT1AL, OH0XJ, OK3JV, SV1BL, T3RS, VP2AC, ZF1GC, 1M4A (Minerva Reef), 5W1AX, TX1MD, SM8NG. QSLs received: F5HRT, FL3RA, FL3AA, P3BSC, W7USA, VPEHD, CDEW, VESCO Zone 2, XT0H, 4W2AA, VO5MK, VK1AA, YALAW, VRSAB, E13S, 8TH and lots more.

Dud VK4MY reports conditions as picking up and worked some nice ones on 14 c.w. LA5FP, DM4UBO, OH4OZ, ULTR, OZ4DX, G1ARY, V7TANP, LA1H, UW3DX, F5KGG, G3EFP, V8PFO, V88MP (Maldiva Is.), VE1RB, LA5SJ, CR8AH, etc.

Chas VK4UC, who is now chasing WPK logged the following also on 20 c.w.: 6Y8ED (who says 6Y8MJ has already returned to V-Land), H3RLB, F5CJ, IT1AL, OZ4N, OZ4DX, LA1KI, SV1MT, C3CJ, QSLs from VRSAB, OM4JDR, K3KSR, K3WEE, 6Y8MJ.

Peter VK4PJ reports the 10 and 15 m bands as open and lists the following QSOs 21 Mhz. VETVY, G3SVL, G3CN, SM8SLA, G3UML, SM8COF, SM8LZ, HJ4XW, XJ1AW and many, many JAs and Ws. On 20 Mhz. NP1BC, KH6CJ, and several Ws both east and west coast. On 14 Mhz. F5EUB, UG8PD, HB6ZJ, UA1CK, G3N7Z, UR2AR, KL7EDY, BV1UBA, BV1UCF, G1MIV, CN8AP, SM1ABX, VESWB, OE1MEN, 8Y4VP and more. Mostly between 1900z and 1930z and s.a.b. mode.

RYTHM

ZF1GC—C/o Borden Town, Grand Cayman; G3EBC—via R.S.G.B. F5UC, DL5FT, SW1AZ—KS8ST, VP2AC—WA4AYX, HBABBS—HBABBS, VP2C—Box 275, Hamilton, VP2KD—VP2ACD, VPWPK—Box 508, Hamilton, TP1FY—VE2RRG, MP4BDP—via R.S.G.B.: VP5BE—WARC, VP2BJ—VE4OX, KASHC—via W2CTN, SH5JR—W2SNM.

My thanks to the month's contributors: LIDXA, G3GTG, Fla DX'er, VK3TL, VK4PJ, VK4UC, VK4MY and Chas Thorpe. Once again let me make a plea for more OCEANIA news items. Always needed.

Good hunting, chaps. 73, Al VK4SS.

PRECIS OF THE RULES FOR THE 1966 VENEZUELAN INDEPENDENCE CONTEST

Contest Period 0000 G.M.T., 2nd July, to 2400 G.M.T. 3rd July.

Contest Operation: Call "CQ Venezuelan Contest" on 2.5 through 28 Mhz. on a.m. or s.a.b. Single Operator—All bands and single operator—Single Band entries will be acceptable.

VK stations are permitted to work YV and other American countries.

Exchange a 3 digit number consisting of RD report plus a 3 digit contact number starting with 001.

Scoring: 1 point per contact with "other American countries," 2 points for contact with YV stations except on 7 Mhz. 1 point per contact with YV stations on 1 Mhz.

A multiplier of 1 for each country (A.R.R.L. list) and for each Call Area in YV (1 to 9) and U.S.A. (1 to 9).

The total score for each band is the number of contact points multiplied by the number of multipliers. The total all bands score will be the sum of the contact points in all bands plus the sum of the multipliers of all bands.

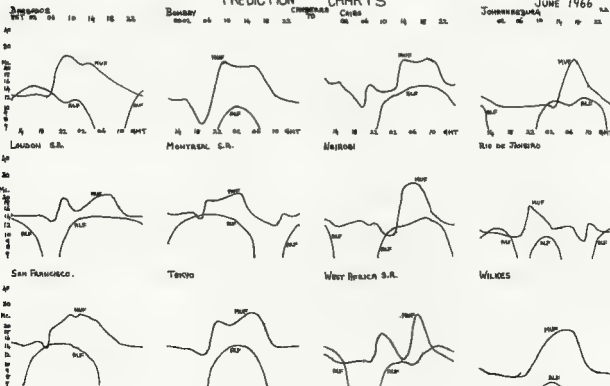
All contestants must compute their own score on a separate summary sheet.

Logs: A separate log must be kept for each band. W.I.A. log format is satisfactory.

Logs postmarked not later than Sept. 16, 1966 to Radio Club Venezolano, Concurso Independencia de Venezuela, P.O. Box 2585, Caracas, Venezuela.

PREDICTION CHARTS

JUNE 1966



(Prediction Charts by courtesy of Ionospheric Prediction Service)

Page 23



Sub-Editor: D. GRANTLEY, W1A-14023
Alexander Ave., Hazelbrook, N.S.W.

I was very disappointed to read the results of the 1965 V.W.L. contest in the April issue, for once again only 12 of our many listeners are listed as having taken part. As we all expected, the results place a very high value on the c.m. men, who as I said once before have this contest at their mercy, and whilst the contest is "Receiving Open" for the 1966, I will continue to persist. Peter Drew as usual topped the overall score with 11,140 points, which was a fine effort and a probably a record for this event! (Any further details available, Eric?) Now that winter is coming on, we look to our next V.K. contest, the A.D. Now the time to start the big overhaul of your gear, check those faulty tubes, poor antenna connections, alignment, put some carbon tetrachloride on the noisy controls, and the antenna, bring the gear up to a standard which will enable you as an individual operator to make this fine contest a success.

DX News. K2B8D has been heard regularly on 40 metres a.s.b. from 0730z most nights at good strength. BV1USA and OX3V have been logged by Alan Ratery and I have also heard around 113 a.s.b. at good strength. The latter's QSL manager is 8M7ACX. All QSLs for W18B heard recently, about 30. I have heard a lot of W18B to be active at present, with QSLs to K5GOT. Should you hear 3A2DA it is most likely to be a pirate, and the call should be used to have all the world around the picture rail, whilst in the same magazine VK3FA is reported on 40 metres by a s.w.l. using a 20 metre vertical.

Overseas S.W.L.s. This month we greet a well-known listener from Great Britain, Bernard Hughes, whose name is readily recalled as QSL ladder and tape section manager for the I.S.W. In London. Details of his gear are as follows: rx is an Eddystone 840c, with a Codar PR30 preselector fed by a 20 metre dipole and 60 ft. lead. One of his latest acquisitions is Bernard's listening has been his award hunting, and to date he has the Ockenden Venture Award, Newbury Award, and the award of the United Nations Class 2 for 65 countries, U.N. Class 3 for 40 countries, several country awards from the I.S.W. and the Radio New York World Wide S.W.L. Club Gold Certificate. Other awards have been received for Countries heard are 185 with 77 confirmed in 20 zones. He has to date heard 220 prefixes with 145 confirmed.

On the tape side of the hobby, Bernard uses the following machines: Truvox 1989, Philips EL302, Elizabethan TRA, A.I.W.A. T7141, and Garrard 4005 speed transcription deck. At the moment he has 87 tape contents in nine countries including one /M6.

Around the Shaks. Finally over to VK3 and Bryan Prosser who, as usual, reports on tape, and very fine job of recording too, and reports good conditions on 10 metres. W18B is located many G and JA stations. On the old standby 30 metres V88FO, K2E2HA/M6, Z88RB and LA7RF were a few of his. He also heard a lot of 20 metre stations, including G1JIM DL7BG, W18U/K06, YK1AA, O4AQW, EF5AM, 8M3SS, LA5YE and HB8MU. If we don't hear from Bryan for a few months, some of you VK3 boys had better set out across the Nullarbor to look for him, as he plans to set out for Adelaide in June. I was writing on the subject of that fair city, a letter to hand from Alan Ratery indicates that he is still intent on the next A.C.C.P. contest, and has been able to hear quite a number of American s.a.b. and s.m. stations on 7 Mcs., whilst on 20 he heard all continents on 1 s.a.b., plus EA2E, several W and V8 on s.m., a French senior VK3, Chas. Abernethy, I had a long and very interesting letter.

Chas. writes to remind anybody interested in card swapping, that he has names and addresses of many s.w.l.'s throughout the world who wish to swap and a s.w.l. to his address 30 Urunga Road, Miranda, N.S.W., will bring you further information. Band conditions here in Sydney are still extremely good, and here in L201, I have continued to find much of interest on all bands except top and 10 metres. Whilst nothing new has been located, conditions have made the search a pleasure.

hope it continues. It is with much pleasure that we welcome back to the fold our VK7 supporter Greg Johnston who has just returned from a short spell at Macquarie Island. Greg is now QSL manager for Co. VK6M1, a task which will keep him fully occupied. Up here is VK3 Mac Millard who reports good signals from W land on 10 metres. This is the best report I have had to date on ten, and is quite significant as his QTH over in Kingsgrove would not be the best for DX. Mac has now moved up a little higher in the DX ladder with 345 heard. I could write a full column on the activities of Ernie Laity, who seems to be intent on catching the leaders. Pre-fines heard at his QTH in Elizabeth Vale, S.A., include: F0K1, VE, 8V, EA, LA2, 43, the KC0, UA2, HK3, Z88, KP2, DL, OK1 and DUT. New confirmations were YN1CML and KR5MR.

I have no s.w.l. reports from VK4 this month, however, Chas VK6UC reports excellent conditions on all bands, particularly on the DX front in the late afternoon. Chas has been most helpful in supplying QSLs and information for this page, and I am sure we all appreciate such assistance from one of our top DX men. He uses a Gelson v.l.n./buffer/SDQ into an inverted vee, and gets out exceptionally well with his 30 watts RX in an ART. Ray Kearney LA57 logged the following prefixes on his completely rewired ART: LA, ELA, OE3, OX3, CNR, CTI, EAL, KPN, VPS, YN6, NI, UHR, UR, UJA, MP4, KWA, YS, F04 and Z13AA. Ray, as well as overhauling the ART, has erected a long wire antenna, 130 ft. long and 35 ft. high. Warwick Smith LA58 is becoming a bit of a fixer of late, but has not done a lot of listening. However, he did manage F887Y, H88AB, CTI, VPS, H81, TCH, GYS, VTO and many others. LA58 received was W861P/KJ3. Bob Halligan LA328 received cards from W18U/K06, V88EQ, SP5BQ, F0K1ADP, UA4KK, V88MD, and 9M2DK, with a new country heard, EL38. Bob has been concentrating on 5 metres and has a new GP up 40 feet.

Down to VK7 and Bob Mutton who lost his dipole, however, he reports plenty of W's on 7 Mcs. at 8799c. Inward cards include HB8GN, SV1AE, 888BNX and V88OC. A late letter from Ernie Lorton advised that he was looking for s.w.l.'s. The G award is made to any s.w.l. who can produce QSL cards as proof of contact with G stations, resident in the United Kingdom, all on 30 metres phone (s.m. or s.a.b.), but not V. The 12 contacts must include G1, G2 and GW, and three of the contacts must have been working a member station of the Elizabeth Radio Club. All applications should be sent to: Ernie Lorton, 100 Urunga Road, Elizabeth Vale. Ernie has just received cards from V88FS, CT1LX, F8QV, CP8P and OX3V. Finally to Peter Drew LA57 who, in addition to his 10 metre lead over in VK3, has also been working on 20 metres. He has received cards from V88FO, K2E2HA/M6, Z88RB, Z88JA, 8M3SS, Z88JU, Z88OM, SV1NP and W88KX, most on s.a.b. On the other

hands the conditions in W.A. have been similar to those of the eastern ones. Peter has given me a long list of calls heard on the other bands, but lack of space does not enable me to print these. Congratulations to Peter on your fine top score in the last V.K.2L. I will be in Melbourne for most of June, so hope to meet many of the VK3 group then. Tapes to hand this month include Bryan Prosser of VK3, Bernard Hughes of England with a random selection of that country, and a very interesting spool from VK3 I.S.W.L. member Doug Head of South Yarra.

Queries and Answers. Ed Morton, in answer to your query re the operation of VK7L, Ken has written to say that the only legal operation of that call is from 3/1/65 to 3/1/65, and he is the only holder of the call. Therefore we can assume that there is a pirate about. Wanted by LA54, John Davidson of Lister Street, Sunnybank, Brisbane, the circuit of an STC A87H. The circuit or handbook of the Grundig type 409W6 is required, and any information on this should be sent to Chas Abernethy. Bryan Prosser of VK3 is in trouble with his Murphy 840, and wonders if any of our chaps can give him a list of substitute tubes for it. The elusive RA 3100 whom Chas has been trying to run to earth, has turned out to be LA584. How about letting us in on the mystery old man? Bob Halligan, QTH of V88OC is Royal Air Force, Mairairi Airfield, Radio Club, B.F.P.O. 69, Mairairi Is. Or via R.S.C.S. bureau.

A class peruse of this list will note some interesting changes in the lower positions, and a few deletions.

Countries	Zones	W	Status
Cont.	Hrd.		
E. Trebilcock	323	290	45 89
P. Drew	100	323	38 40
D. Granley	132	296	39 30
W. Smith	128	307	34 30
A. Westcott	186	189	24 11
R. Kearney	194	170	27 8
C. Earl	167	167	23 10
M. Hillard	88	245	23 14
E. Luff	70	121	27 6
C. Abernethy	72	141	27 10
A. Ratery	62	188	28 11
R. Halligan	81	184	27 3
P. Prosser	66	140	17 10
R. Mutton	50	100	27 10
B. Mackintosh	41	103	20 8

VK3 NEWS
The mail today brought the first copy of the new publication from the group, "Geo-Best". A lot of time and care has gone into this effort, and it deserved the support of all s.w.l.'s. For further information write: M. Brockman, 3/20 Hillside Avenue, Caulfield, Victoria.

That winds it up for this month chaps, thanks for your interest, and look forward to hearing from you all again in a few weeks.
T2, de Don 13023.

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FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL QSL BUREAU

The following change in the A.R.R.L. QSL Bureau set-up is effective immediately—

W3-Nor. Jersey DX Association,
P.O. Box 305,
Ridgewood, N.J. 07065

PTYACQ Philino, was scheduled to be active on 4 and 14, 17, 21, 24 and 28. From April 6 to April 12 QSLs should go to Brazilian DX Club Box 842, RECIFE, Brazil. Envelope and 3 IRC requested.

Results of the 1955 QZ CCA Contest do not list any VK or ZL stations. The 1966 contest 15th was staged April 30 and May 1 but information was received too late for publication in April A.R.

Gond to hear from Ted VK9TB ex-VK2QM, Ted a native on 7 Mc. c.w. and anxious to have any new stations start VK3.

The Independence of Com. DX Contest scheduled from zero G.M.T. Saturday, July 18 to 2300Z, Sunday, July 17. Full details and log forms can be had from this Bureau.

Bruno Bossert HB9QZ, who spent 1964 in Australia and desires to return on a permanent basis, took unto himself a wife, the event taking place near Lucerne on May 18. Congratulations Bruno and hope we will meet you both.

—Ray E. Jones, VK3NJ, Manager.

NEW SOUTH WALES

Friday evening, 22nd April, saw the regular annual general meeting of the VK3 Division of the Wireless Institute, Lower Ness. The retiring President (Ivan Agir VK2AIM) took the chair and there was an attendance of about 50, including two visitors, Morris Parsons ZLIMC, a member of the NZ A.R.T. Council, and associate member of the W.I.A., Fred King VK2PF, of Lismore, immediate past president of the 3rd Northern Radio Club.

The Auditor (Mr. Ingherwood) presented the report of the annual general meeting of the VK3 Division of the Wireless Institute, Lower Ness. This showed that a surplus of £354 had been made on the year's operations, a substantial part of this amount being held in the W.I.A. fund. The overdraft of the bank was higher than it should have been, but it is expected that the recent increase in subscriptions will overcome this.

After the auditor had cleared up a number of points raised by members of the audience, he was accorded a vote of thanks for his assistance to Council and the Division.

A further vote of thanks was moved to all who had helped in any way with the work of the Division during the year.

Before closing the annual meeting, the chairman, referred to the friendship that had been recorded by members throughout the State during his term of office, and particularly mentioned the debt that he was all owe to that section of the membership who had depended on to carry out their duties efficiently year after year. He then offered his support and best wishes for a successful term of office to the incoming President, Tom O'Donnell VK2OD, who took the chair and opened the monthly general meeting.

The security for the evening was entitled "Centre, Circuits and Relays" and was delivered by Bob Barringer VK2ZIB. Bob proved himself to be a very able and interesting lecturer, and his talk illustrated many slides was followed closely by the audience. Of particular interest was a model rotary beam antenna which Bob used to demonstrate some of his relay in a simple circuit. This enabled the beam to be rotated either way by merely turning a switch. We are sure the publication

of details of this gadget would be a popular move.

The usual vote of thanks to the lecturer was dealt with by Hans Rucker VK3AOU.

The main business before the meeting was the presentation of a report by the Federal Council, presented by Mr. Noel Hansen VK3AHB on his Homestead tour and Jack Croft, who sang several excellent numbers. Prizes for the winners of the competitions were presented on the Sunday night. The Convention finished with goodbyes on the Monday morning.

A telegram was received from Cliff and Jean Raitlich VK3KO from Mt. Cook, New Zealand, sending their best wishes to the Convention.

Results
Mr. Hunt, 1st, Brian Rank Bellington VK2ZCQ, 2nd, Alan Lundy (Inverell) VK3AS1, 3rd, Jim Cummings Sydney VK3PM.

144 Mc. Hunt, 1st, Alan Lundy (Inverell) VK3AS1, 2nd, Bill Sinclair (Tamworth) VK2VBZ, 3rd, Jim Cummings Sydney VK3PM.
144 Mc. Hunt, 1st, Bill Sinclair VK2VBZ, 2nd, Reg Stockman (Inverell) VK3ATB, 3rd, Harry Crisp (Tangra) VK3JAM.

Fred VK2PF complimented Pierce on the comprehensive nature of the report and a vote of thanks was carried for the usual manner.

Divisional Council has suffered its first casualty with the resignation of Morris Marsden VK2VY, because of other commitments. Morris had underwritten the duties of the Secretary and was a keen Councilor, and his resignation was received with much regret.

Membership of the VK3 Division continues on the rise and an application for admission into membership of the W.I.A. at the April meeting.

Couples for the May "A.R." if they managed to get through in spite of the mail strike) reported that W.I.A. history had been made with what is thought to be the first lady member of the Division. Council member Hebe Grouse VK2AKW won her right to sit at the Council table in the recent ballot. During the Hebe Grouse broadcast, she was broadcast to members over VK2VY and I'm sure all who heard it will agree that she gave us a very well presented and newsworthy broadcast. Congratulations, Hebe!

A recent addition to the Club population is the Nepean District Radio Club, with former Divisional President, Max VK2PM, in the chair. Showing commendable activity, the members intend holding a Field Day on 13th June at the Penrith Civil Defence H.Q., which is located in the Murrumbidgee industrial area. Anyone living in this area with an interest in radio would be welcomed as members.

The W.I.C.N. members are still meeting regularly. At the present time they are conducting a series of "clinics" at W.I.C. on certain Saturday afternoons, when those with mobile outfits may bring their Salongs and have them tuned up and put on frequency. With the aid of equipment that has been loaned for the purpose.

The R.F. and T.V. Group have continued with their usual meeting and fox hunts during the month. Of interest to those interested in the R.F. are the news that Alan VK3BA was recently told by a JA that VK3 was being heard in Japan on 6 metres.

Two well-known conventions were held as usual in Easter week-end, one at Canebrera and the other at Urunga. Both functions were very successful, there being 53 registrations and members from 14 clubs, totaling over 100 at Canebrera and 27 registrations plus XLV and harmonics at Urunga. Divisional Council was represented at Canebrera by the President, Tom O'Donnell VK2OD, but Council's representative for Urunga, Charlie Wilkins VK2ALB, was held up in Brisbane by family illness and unfortunately was not able to attend.

Ken Maitell VK3KM has informed us that he will be forwarding notes of the Canebrera "do" direct to "A.R.", so we will not duplicate them here. We are indebted to Bill Allworth VK3OD—Grafton Bill to his friends—for the following information.

The Urunga Convention was held over the Easter week-end. There were 27 registrations, plus XLV. The weather was perfect and all who attended enjoyed a very pleasant and entertaining week-end.

The Saturday evening social was held at the Urunga School of Arts, when supper was provided by the local Progress Association. The social on the Sunday night was staged at the Bellington Bowling Club. Entertainment was provided by Mr. Noel Hansen VK3AHB on his Homestead tour and Jack Croft, who sang several excellent numbers. Prizes for the winners of the competitions were presented on the Sunday night. The Convention finished with goodbyes on the Monday morning.

A telegram was received from Cliff and Jean Raitlich VK3KO from Mt. Cook, New Zealand, sending their best wishes to the Convention.

Results
Mr. Hunt, 1st, Brian Rank Bellington VK2ZCQ, 2nd, Alan Lundy (Inverell) VK3AS1, 3rd, Jim Cummings Sydney VK3PM.
144 Mc. Hunt, 1st, Alan Lundy (Inverell) VK3AS1, 2nd, Bill Sinclair (Tamworth) VK2VBZ, 3rd, Jim Cummings Sydney VK3PM.
144 Mc. Hunt, 1st, Bill Sinclair VK2VBZ, 2nd, Reg Stockman (Inverell) VK3ATB, 3rd, Harry Crisp (Tangra) VK3JAM.

SUNTER BRANCH

Some members will have noticed the absence of notes for the Branch during the past two months. The causes of such omission were factors in the branch which are cancelled. Nevertheless, activity in the Branch has remained at a steady level and meetings have been held as usual. The April meeting was held on the 14th and 15th at the Sunter Sydney, but, at the last moment he was unable to attend and a screening of two interesting films, "Heart of a City" and "Pipeline to the Clouds," gave some graphic views of the development of our water supplies are upon the public water supply and underlined the need for care in the use of this precious commodity.

On the 22nd April a committee meeting on the Tuesday after the monthly meeting in order to arrange the programme for the following meeting. All interested are asked to attend to assist with this important aspect of Branch activity. The gathering takes place at Bill Hall's residence in Bull Street Cook's Hill, and the rather informal proceedings commence at 8 p.m. This applies to the Tuesday following the first Friday of the month. As a result of previous action, a worthwhile programme of lectures, demonstrations and social evenings has been arranged for the remainder of the year.

It is not too early to begin planning for the next Hunter Branch Field Day which will be held during the October long week-end. Because of developments in Bull Street Cook's Hill, and the rather informal proceedings commence at 8 p.m. This applies to the Tuesday following the first Friday of the month. As a result of previous action, a worthwhile programme of lectures, demonstrations and social evenings has been arranged for the remainder of the year.

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SILENT KEY

It is with deep regret that we record the passing of:

VK2ANC Frank Cook,
VK4EL—Eric Lake
Ex VK4RT J. (Ray) Thorley
VK6AB—Alan Buckle

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giveness it. But ZYL on sidebar—It's frightening to contemplate. The result is an absence of any senior citizens, but however that I can now tune around 40 and listen to all the signals without having the speaker cone bounce out across the table at regular intervals.

It is very pleasing to report that two new call signs now grace the V.H. bands. They are those of Frank ZBYX and Ian ZKIO. Frank is more or less a permanent resident of Newcastle and is likely to be in the air quite frequently, but Ian, being a public slave, like myself, has had a whisper of a transfer to the wild and remote y.h. of Warrumbungle. The Pilliga scrub is not known to this writer. One thing is sure, however, there'd be little electricity there. The wild Irish Rose still has not managed to raise the aerial above grass height, but his signal in Sydney is due to be as strong as those with technically perfect radiating systems. This is due no doubt to the high quality of the string used in its construction.

Nothing whatever has been heard of the Ceanach contingent and it appears that the cold weather has driven them all underground. Arthur ZEMU has one of the fash new earphones and hopes soon to be on the 168 MHz. He is now in the air with a selection of one of these exotic items and is well on the way to converting it for Amateur band use. I am told that one of our members has been twice as strong as those with earphones that he now has no further use for them. The same gentleman would like to swap them for some rings every evening. He says it's due to a change of emphasis—whatever that is. Colin ZBCC, exiled in Sydney, is still sending out some good good signals. He's going to try the left foot out for some super c.w.

The calendar for the next few weeks indicates that there will be meetings on the 3rd June at 7.30 p.m. in Room of the Clegg Building at Newcastle Tech. Don't forget also that the Westlakes Radio Club will be holding their Annual Field Day at the Club on Sunday, 13th June. The usual full programme of events has been arranged commencing at 10 a.m. and a canteen is available serving hot food and drinks. See you at the Westlakes Hunter Branch Field Day. 73, ZAXX.

CENTRAL COAST BRANCH

The last meeting of the Central Coast Branch of the W.I.A. was held at the School of Arts, Gosford, on April 15, 1966. The lecture for the evening was by Peter ZKAA.

"U.H.F. and 432 Mcs. in Particular." It was a most instructive and interesting talk especially as he accompanied it with sketches, tape recording & transmission by Dick

VK2 DIVISION

R.F. CMOKE Type 4316

Made for the W.I.A. by Tele-components. Suits your pi-coupler final. Rated to handle up to an 813 or pair of 807s or their equivalent, 2.5-3 mH. 300/500 mA. R.F. £2.25 each.

TRANSMITTERS FROM SONAR

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Contains six battery tubes, one 3A4, three 6L4s, two CV820s, a dozen capacitors, 18 resistors, four coil formers, four miniature variable capacitors (screwdriver tuning with locking nut), min. 1 meg. pot., valve sockets with shields. All on a circular base 4 inches in diameter. Excellent condition. Price \$1.25 plus 25 cents postage. Ideal for stripping, Youth Radio projects.

These are some of the items carried in the store run by the VK2 Division. Both new and surplus lines are in stock. A catalogue is available by writing to Disposal Section, Wireless Institute Centre, 14 Acheson St., Crows Nest, N.S.W.

VKEZCF on 432 Mcs., and various pieces of gear and test equipment from his own shack. Included in the variety of items were a field strength meter, 13 el. yagi, 432 Parkes converter band edge marker and wave meter. One of the planning points for the future was the simplicity of building for 432 Mcs., keeping in mind that the skin effect is vital and, large surface area wires and slugs are essential. His coverage of the propagation was very interesting also. He reckoned constant for a certain relationship in ship plumbings. The members were disappointed when he had to rush the last part of the talk because of a shortage of time. However, as a number of the members have a few more converts to the u.h.f. in the Gosford district. 73, Mons ZAXS

BLUE MOUNTAINS BRANCH

The March meeting of the Branch was held at the usual venue in Lawson where at the annual meeting a new crew of officers was elected for the ensuing year 1966-67 and re-elected as follows: President, Derek NNR, Vice-President, Ron ZADA, Secretary, Bill ZRZ, Treasurer, Alan Smith; Construction Committee: Bob ZAZZ, Trevor ZTH, and Don ZARI, with E.W. Dan, publicity, Ron ZADA, retiring President, Don ZART, in charge of the events and progress of the Branch that had taken place during the past year. After the business meeting the members were most evening rolled into the usual rag chews and supper.

Art ZAVA and Alex ZEX had a week's mobile up north and were heard many times and by an enjoyable week.

Noted some increased activity in the club in the last few months—let us hope it keeps up. Club Treasurer, Alan has had busy times as he sat for the April exam, and just a few days before the exam, his wife presented him with a new ham radio, bona fide to verify business and congratulations to you and yours. Let us hope the same will be in order for your exam. Several weeks before the April exam, Don ZART, Alan ZAVA, and Alan ZEX, who sat at ZTH's Trevor ZTH, whilst both were being tutored for the said exams.

Bill ZH2 has been busy on the air working net and great with his new 432 Mcs. fine business Bill, glad to hear it is working out so well, whilst Trevor ZTH was having trouble with wind and his vertical 18AVG which has now converted to 18AVG and seems to be getting out very well.

Sid ZAYK has been down the coast at Wollongong for a few days. Overheard Sid putting a new antenna on his 432 Mcs. mobile. Atla boy, Sid! See you all—3rd Friday at Lawson. 73, Ron ZADA.

CANBERRA RADIO SOCIETY

The Canberra Radio Society held its third annual Radio Amateurs' Convention during the Easter holiday week-end (April 15, 16, 17, 18, 1966). This is becoming an annual must in the eastern states and this year's attendance was well up to expectations. A full week-end of constant technically interesting visits and social functions took place.

Highlights of the week-end were the visit to the Deep Space Instrumentation Facility No. 45 at Tidbinbilla with its 65-ft. dish antenna with a gain of 58 db. to the National Laboratories' Nuclear Physics Dept. also proved of great interest as did the trip to Belconnen R.A.M.C. transmitter causes some strange r.f. problems. New this year was the additional visit to the Macross Radio Telescope which is nearing completion at Rankinsburg, not far from Canberra.

Contests included 7 Mc. and 144 Mc. fox-hunts and hidden Tr hunts. A receiver sensitivity contest was also held during the Saturday night. The pleasant surroundings of the Cotter Dam Reserve.

On the Saturday evening the convention dinner was well attended and following the formalities the visitors were treated by a short talk and slide show by Steve VKIVK, ex-VKOVK, and Ken VKOKN on their activities in Antarctica.

There was a film show on the Friday evening and also a Sunday morning following the junk sale and prize-giving. The club is indebted to Mullard Ltd., A.W.V., Anodeon Electronics, Bellini Ltd., Alan Duon, R. H. Cunningham Ltd. and the VK2 Division of the W.I.A. for providing equipment and components for prizes.

An interesting feature in favour of the Canberra Convention is the wide variety of visitors seeing attractions with something for every-

one in the family. The Canberra Radio Society encourages the family outing aspect of their annual event and discourages the idea of a group of hams in a huddled bunch and another group of bored families trailing along behind.

The Canberra Radio Society is due to lose its club premises at the year future and has already disposed of its club station. It is hoped that this will not interfere with the plans for the 1967 General Assembly and that the members will be able to have even more new attractions with possibly competitions for the ladies, with prizes!

OBITUARY

FRANK LESLIE COOK (VK5ANC)

It is with much regret that we record the passing of Frank Leslie Cook VK5ANC, who died on Easter Monday after a long illness.

Frank was licensed in 1934 and operated first under the call sign of VK2YF. Following the outbreak of the war he served in the force World War II he allowed his call sign to lapse, but after the war came back to the radio and resumed his VK5ANC.

He was active mainly on 7 and 14 Mcs. for some time, but in recent years operated on 432 Mcs. and 144 Mcs.

Being one of the old school of Amateurs, Frank was a keen builder of his own equipment. One time he worked in the radio industry but for many years prior to his final illness he was employed by the C.S.R.O. as a mechanical draughtsman.

Apart from his interest in radio, Frank was very active in Parents' and Citizens' and Progress Associations in the Carlingford district, and the large and representative attendance at his funeral was an indication of the esteem in which he was held by many. The Institute was represented by Peter Campbell VK2AXJ (Divisional Council) and Ivan Agar VK5AKM, and the sympathy of our members was given to Mrs. Cook by sons David and Bruce.

ERIC LAKE, VK5EL

Eric Lake, VK5EL, of Belgian Gardens, Townsville, Qld., was born at Shrewsbury, England, 60 years ago. Came to Australia as a young man and joined the P.M.G. in 1933. He was employed with the P.M.G. in Townsville for the past years.

He was a member of the P.M.G. with DXCC 14, 21 and 38 Mc. and holder of many Awards. He took an undying interest in tutoring many young aspirants for their licenses.

Eric, as all those who worked him, knew, was a competent code operator with an immaculate list and was a member of the R.S.G.B. and P.O.C. He leaves a wife and two daughters.

JOHN (ROY) THORLEY, Ex-VKART

John (Roy) Thorley, ex-VKART, of Emma St., Mt. Gravest, was aged 54 and was a magnetic personality and a devoted accident. He was a Past President of the W.I.A., Queensland Division, and also Secretary of the Queensland Division. He was much time and energy to the promotion of W.I.A. affairs in Queensland. A notable DXCC, he had more than average ability in both electronics and electronics. John received his ticket in 1935 and was well known amongst the phone men.

ALAN C. BUCKIE (VK6AB)

It is with deep regret that we record the passing of Alan Buckie VK6AB. Although Alan's health had not been the best for some time, news of his sudden passing came as a shock to his many friends and associates.

An old-timer in radio, Alan took out his call of VK6AB in 1935, and remained active until World War II. It was an end to Amateur Radio for some years. Alan joined the R.A.A.F. where he held the rank of sergeant until his discharge. He then worked for some time in the defence equipment in theatres but had little spare time to enable him to engage in Amateur Radio activities.

However, in recent years Alan became active again on 60 metres where he had secured friends in the form of members of the 8 m. "Shaving Patrol".

The sincere sympathy of the members of the W.I.A., the Divisional Council of the W.I.A. is tendered to Mrs. Buckie, her son, two daughters, and son-in-law Graham VK6ZZZ.

VICTORIA

The Annual General Meeting was held at the rooms on Wednesday, 4th, with about 40 members present. The President's report and financial statements were read. There was no Treasurer's report as such as the acting Treasurer was not elected.

The division finished the year in a satisfactory position, showing a surplus on the year.

Questions were asked on a number of subjects ranging from the late arrival of notice papers for the meeting to a report and lack of sufficient workers in divisional affairs.

Queries on the Federal Convention were answered by Peter VK3JZ and Harold VK3AFQ. As a result of the discussion on the shortage of workers the outcome was that after the meeting two volunteers approached the secretary and made their services available.

It was agreed that a drive for more members will be made this year, an only about half the licences in this state are in the Amateur Bands.

Although publicity on Council's activities is fully covered in weekly broadcasts, it was the opinion of the members that there could be done in this regard, as many do not listen to broadcasts. It was agreed that in future copies of council meetings will be placed on the notice board and that the secretary will put information on any item in the minutes can contact a member of Council.

The following will serve as Council for the coming year: Ken VK3AFQ, Tom Cuthbertson VK3QZG, John Statham VK3OR, John Spier VK3LSE, Michael Owen VK3ZSO, Jack Taylor VK3ZL, Ken Statham VK3ZL, Bob Beckett VK3ZCB, Bill Roper VK3JAZ, John Wilson VK3ZQZ.

At the completion of the Annual General Meeting the short break was taken before starting the May General Meeting. After the routine matters were dealt with, the discussion turned to the question of the shortage of the number of applications for membership received during the last month. It was the consensus of the members that the question being the regular inclusion of notes to "A.R." of this course depends on finding somebody who will agree to undertake this task on a regular basis.

The I.T.U. Fund was the subject of a long debate. The short break was taken before half its quota. This is partly the fault of Council in failing to follow up the promise to donate more to the fund. The letter will be looked into in the very near future and a letter will be sent with the annual report and balance sheet to all members. Non-members will also be contacted. The list can be compiled. Additional publicity will also be given on broadcasts.

The June meeting will be a White Elephant Night. No come along with your surplus bits and pieces. "Flogger" Hepburn will be in attendance and those who have been him in the past will be asked to bring their surplus to the last sent out of the buyers.

At the July meeting Cyril Maude VK3ZCX will speak on Amateurs and the VLF3ZCX Home-brew Equipment. Cyril will bring samples of these labels for display.

VICTORIAN STATE CONVENTION

The VK3 State Convention was held on the weekend-end of the 23rd and 24th April at Ararat, about 100 miles from Melbourne. In attendance, plus some wives and families.

Fifty-five sat down to dinner on the Saturday night. After the meal the ladies were dispersed to the local picture theatre where they were the guests of the management for the evening, leaving the members free to get on with the business of the Convention.

Reports were given on Divisional activities for the year, the Federal Convention at Easter and Warrnambool. A number of very well attended as very few questions were asked and very little discussion held on the various reports.

This should not be taken as an indication that the convention was not a success, as much useful information was exchanged between Council members and those present.

On Sunday everybody moved to a local picture theatre for a barbecue and a very competitive events, and a lot more "raw-chewing".

The afternoon finished with the presentation of prizes and afternoon tea. Our thanks go to the members of the Western District for the very warm welcome to the Convention, with a special thanks to Brenda VK3JKT and the other ladies in the zone who worked like trojans to ensure that everyone was well fed.

We also extend our thanks to Mullard (Aust) Pty. Ltd., Fairchild (Aust.) Pty. Ltd., Ham Radio Supplies, Wm. Willis & Co. Pty. Ltd. and McGibbs & Co. Pty. Ltd. for the prizes they so generously donated.

WESTERN ZONE

We were all pleased to welcome visitors to our zone for the State Convention which was held in Ararat recently. Commercial s.b.s. were displayed by Brenda VK3JKT installed his home-brewed s.b.s. gear as a base station for the incoming mobile.

The Hon. Mr. Byrne, who opened the Convention, and the Mayor of Ararat, spoke of the good work done by Radio Amateurs by the way of better understanding between countries.

On the Sunday I think most of the time was put in replenishing the inner man, and by the way the steaks, pies and sausages were put away, credit must go to the two chefs, George 3GN and John 3AFU. Brenda 3KCT also did a sterling job with the other eatable items. One thing went astray, the ice cream, which was overcooked to Stewell, so will have to blame the Radio Boys.

Prizes were won by Harry 3ZX, home-brew gear, Gerry 3ZCB, guessing frequency, Michael 3ZEO, v.h.f., scramble, Merv 3LL, travelling further, and a 1000 yds. race. (3ZC) 3XYL won the ladies' quiz, with Shirley (David's) 3XYL 3XYL missing out on the top of a coin.

Thanks must go out to George 3GN and Neil 3AFD for the excellent arrangements for running of Convention. Neil did all the accommodation booking without a hitch.

Doings in the zone recently include: Herb 3JN and George 3ZOS have been busy modifying carphones on a 1 m.t. fm. and carrying out tests with 3AFU and 3ARM. Tony 3ZAD had a holiday from radio and dug himself a swimming pool and landscaped the garden with surplus dirt. He is now building a delatbet for the zone's emergency tests. Heard Harry 3YB with a good haul on the zone's mobile. George 3ZEA and Gavan 3ALJ, of Rainbow, heard on 3 m.t. Gavan getting better results with new converter.

Rodney 3UG visits zone occasionally. Last trip took back 3ARM's s.b.s. gear which he re-built into a super drive rig. Bob de la Motte, who was charged with setting some gear on display at the Convention, Bill 3ZAX back home in town of Nulli. Heard on 1 m.t. mobile occasionally. A very neat radio rack mounted under the dash. Builders towns in his spare time. Roy Goodwin and 3XYL re-arranged the house and the date is on. Ray is going to the Civil Defence School in June. Lyle 3ABA still imparting radio theory and c.w. building Hams. C.W. chaps on book-ups with more news for the notes and broadcasts. 73. Bob 3ARM and Bill 3ARK

QUEENSLAND

The May meeting of the Queensland Division of the Wireless Institute of Australia's Central Council was held at the Ritz Hotel in Brisbane. The following officers were elected for the various positions:-

Chairman: Lawrie 4ZGL.
Vice-President: Eric 4LT and Reg 4VX.
Secretary: Noel Wells.
Asst. Secretary: Bob 4ZRC.
Treasurer: Don 4ZD.

Assistant Station Manager: John 4ZC.
Disposals Officer: Carlo 4ZCV.
Inward QSLs: Jack 4ZF.
Outward QSLs: John 4ZC.

"QTC" Editor: Lawrie 4ZGL.
Technical Sub-Editor: Reg 4VX.
V.h.f. Editor: Tom 4ZAL.
Literature: Paul 4VS.
VK4WI Station Manager: Alf 4OL.
Assistant Station Manager: Alf 4LT and Vince 4VJ.

VK4ZWI Station Manager: Lawrie 4ZGL.
Club Manager: Jack Morris.
Asst. Club Manager: Merv 4CL.
Technical Officer: George 4XY.
W.C.E.N. Co-ordinator: Peter 4PJ.
S.W.I. Co-ordinator: Bill John (Spanish Amateur Radio Club)

Business Manager: Ken 4OF.
Y.R.S. State Council: Frank 4TH.
Y.R.S. Liaison Officer: Chas 4UC.
Publicity Officer: Peter 4PJ.
Council Secretary: Bob 4DP.
Federal Councillor/Observer: Reg 4VX.

The first job of the new Council was to examine all matters and decisions arising from the Federal Convention held in Brisbane over the weekend of the 23rd and 24th April. The Councillor, gave a very comprehensive report on the deliberations, and after quite a lengthy discussion, decisions were raised.

73. Reg 4VX.

WIDE BAY REGION

I suppose that it is inevitable, that with a large number of Hams living in this area that some sort of convention would be held some time. And sure enough, over the May Day week-end, the Hams of the Wide Bay area got together at Ceradusa Creek, near David and a very nice village, Petrie town, and its name is not of aboriginal origin, but is named after a town in Sweden, which obviously is also very quiet.

After a very successful attendance at the Convention, including a large number of Hams, Roy 4ZWR, President of the Bundaberg Club, headed the Bundaberg contingent, and Doug 4PG, the captain of the Calibre and Dawson Valley crews. The Bundaberg group got off to an early start, and as it was a very hilly route, a very hilly route. But Rusty 4JM, over-estimated the power of his model T and it stalled on a wheel, alright Rusty, trailing Roy 4ZWR, who is the proud owner of a brown Cornish, towed the model and trawler safely over the hills. What was that? Wrong name? Sorry Roy, the smoke tricked me, I meant Crown Toyota. Arriving at the Convention, we found the Bundaberg group put up, gear got going, and a very neat little two-stroke battery charging plant stuck up, and the kids, all looking like they were keeping going. The XYLA and YLA looked after the cats and the kids as usual had a good time.

Very early on Sunday morning, 4PG and his riders arrived, and with the aid of some very large and noisy "Bungers", soon had everyone on a hill. In the afternoon, after their awakening of the Bundy crew, that when I arrived around morning tea time, Jocelyn and I went to the Bundaberg group, and a large gum tree, looking up and saying, "You can come down now Rusty, all those noisy Bingers have been quiet. Tracked, tent put up, gear got going, and a very neat little two-stroke battery charging plant stuck up, and the kids, all looking like they were keeping going. The XYLA and YLA looked after the cats and the kids as usual had a good time.

The gear used included mobiles on 7 Mc. and 8 metres and fixed stations also on these frequencies. Arrived on Sunday morning, complete with Alms and a very nice Australian best car Good cars and Herb's Mine goes well also. Herb has the last thing in electric fences around his property. He has a very "science fiction" sound about it. Something like you would expect to see in a science fiction movie. He has a very "science fiction" sound about it. Something like you would expect to see in a science fiction movie. He has a very "science fiction" sound about it. Something like you would expect to see in a science fiction movie.

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A new Regional broadcast station has been opened at Godevold, and an inspection of it was made by Doug 4PG and some of the convention. They spoke highly of the courtesy of the technician who showed them around. The station has a very nice view of the sea, otherwise they may have been thrown out, seeing that I have deserted steam radio for v.h.f. and gone over to the other side of the fence. I have given away Ham Radio for gardening. Well, looks, it's true. I haven't even a receiver. But if you want to know, the bug is sort of biting again, 73, Uncle Xray.

TOWNVILLE AND DISTRICT

It is with regret that I have to pass on the sad news that Eric 4EL has joined the ranks of the "Silent Key's". A few of the old friends present at the funeral, I hope will remember to them as one who was at all times willing to lend a helping hand. To his wife and children we offer our deepest sympathy.

At the last meeting of the T.A.R.C. the President and Vice-President failed to turn up. The meeting was a very successful one, a night of films took its place. It was pleasing to note that the interest of the Lower Burdekin boys is still going strong. But if you want to know, the bug is sort of biting again, 73, Uncle Xray.

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SOUTH AUSTRALIA

It is on again, gimmick master Pansy, also known as VK6PS, is away on holidays, not that he isn't mostly holidaying somewhere or another, but at this time of the year is actually away from home and work and goes places, one such being the hills resort where he has a house. As usual, he has a car and he set up in the nurses quarters, and finding a convenient tree, attached a dipole to which he fed the trusty type 3, and guess what? He applied a mode of modulation to it that was a complete surprise to all that tried to tune it. First of all it was thought that he had at last broken the strength, but no, it was not that, then the next guess was that it was f.m., no again, was it pulse? None of us could work it, but he was assumed to be doing something entirely new, so everyone went out to work the easier 2XW, 2Q4 and so on and returned to SP8 later in the day after he replaced the faulty mike with one that made his melodious voice sound nearly normal.

All contacts on that memorable day are noted to QSL in order to receive one of the do-dipole cards issued on his DXpeditions, it is understood 3 I.R.C. coupons are needed. Any s.b. stations in the QSOs need not include coupons for it, it is up to the DXpeditioner to provide a good file of QSLs of s.b. contacts some having been denied him in the past.

Sidband must be spoken of at this point for on the last contest the increase in strength of his mode is shown, the growth to be even greater than earlier, and in VK3 took the latest figures are 785 for all VK, with VK3 at 65, it is interesting to note the "old-liners" that are going over to it, and the C-w types that are finding it more relaxing and more effective.

Without wishing to take up any VK4 space, oh, we are friends are we not, because "he" is away, one must mention Deltath receivers, wherever one may not wish it, it is fatal to be in some QSO these days and not mention such receivers, for they are becoming such a part of the scene these days that it is a must to at least have some knowledge of them. As far as can be seen at the moment those outside the peasant class are Phil SMN, Dud DQO, Eugene BAV, Al 2BK, John SLD, Garry 5ZK, S2GW and 5ZKA, all of whom have the receivers running or well on the way to it, and the interest in them is growing and anxious are others to share the interest that a special programme is being arranged for a VK3 monthly meeting when the proud possessors of such receivers will be prominent will be coming forward to show and explain them to us. Yes, even you Dud, so write for telecorder.

The pre-Peyton Place net, that always includes Nobby 5WK, Lee 5BK and Ron 5K3

have recently had to re-arrange their r.f. gain control with Ron having moved to the city from Riverton. And by the way the Admiral 5VB gained from Ron's move by acquiring the Riverton s.b. rig, so that Ron can proceed to drive himself up the wall again by building an exciter to end all exciters, this time using a mechanical filter. A glutton for punishment.

Tubby 5NO is packing up to leave VK5, and will probably be heard very soon with a 7000 watt pre-amp. He is well disposed of most of his gear. Will be replacing it with "the strength". His drive will be reduced from the Glashier Class, in which he has been active since coming to this state. We all wish him well in his new sphere and hope to hear him soon with his roving call 10NS may be just who will volunteer to take his place in VK3 in contest participation, for his contribution in that field has been a valuable one to the Division.

Mention must be made of the excellent work being done by Mac SMH in the matter of slow wave instruction and practice for the many undergirding that part of their studies. Night after night on 32 megs Mac pounds away at it and as a result of his work a number of students are expected to crack it at the next try. A pat on the back from us all, Mac.

By the way, next time a Federal Convention takes place it is hoped that VK3 will send Pansy as an observer to compare with the one sent last time by VK3.

The last meeting of the VK3 Division was a interesting night when Mr. Dick Watkins on "lonosound" installation operating at W.R.E. and displayed a model of the antenna system, which he built two half centimetres. They were suspended from a lattice mast and the wire which normally would have become the top guys was in fact copper, forming the antenna. Normal Guya clewlines. Measurements are taken at frequencies from 1.8 megs. to 20 megs. by an ingenious system starting with a v.f.o. and when one member suggested acquiring it, it was hands off. Films and prints showing the reflected signals were displayed and explained with a schematic diagram. A measuring about 3 by 4 feet was displayed to demonstrate how the various oscillators there were at least two different frequency generators in all played their part. The lecturer also spread out on a table a schematic of the circuitry which was even larger than the block diagram. A most informative lecture and introduced some new techniques to many.

Reference was made to the publicity given to the Australian satellite by Geoff 5TY, when he queried the information that the information had been published so he gave actual figures. It appears that two representatives from the United Kingdom and United States had flown up to Brisbane to seek W.I.A. Convention support for their project, the convention

had agreed to give support to a certain financial limit. No doubt this will appear elsewhere in due course.

There was no need for the caretaker's dog to do his usual job, for after the meeting for with no Pansy it finished by 1030 a.m.

Did you know that Ian 5IZ has come by a 7000 crystal? Sounds like an 40 mhz broadcast of the Divisional notes, and judging from the experimental relay last week we can assume that he was waiting to join the party. It is many years since 7140 was considered in the matter of either original broadcast or not.

5ZF heard saying the other day that he was going to try s.b. on 41 Mhz. soon, apparently he had a good go on c.w. and whilst pleased with the results was waiting to join the party.

Amongst those present at the last meeting were 5UJ of Whyalla, 5UK (until recently 5UX) who has now moved to five years at Alice Springs—and wishes he was back there too—and Len 5YF who was talking of "when he takes up radio again," there is still some hope, Len.

Important visitors to this QTH (Gawler) recalled included Den 5ID well known to most of us as a "low" holidaying in the 50s. VK3A. He was a "low" holidaying in the 50s through here on his way to Broken Hill, whose rumpers of democracy are so ably defended by the "low" holidaying in the 50s. s.b. with a Galaxy and also on a.m. with a H.E. rig, both being powered by a solid state amplifier. He was a "low" holidaying in the 50s. All excellently made and fitted. Oh yes, there was room in the front seat for his XYL, but that was a "low" holidaying in the 50s. side. It was learned later that he went out to Steven's Creek which is 8.99 miles from the town, or is it the entertainment centre that is the distance. The "low" holidaying in the 50s. Galaxy chaps have trouble with the dial drive vibrating when in motion just ask Dan or Dud if they will tell you the secret, and give the solution.

The Gawler "Happy Gang" have a little to report. The "low" holidaying in the 50s. of Les BAX, who mostly calls CQ and stands back for the choice calls, the rest here have a meaning, also with v.f.s. which of course may may not be reported elsewhere. If anyone has a reasonably recent copy of the call-book that they don't want, then call it Len or Dud. The "low" holidaying in the 50s. was trying to find Bob's 5ZDX address, and on reference to the only copy of the call-book it was noted that Bob's call was not listed.

Heard 5KH (telling how he caught a 34-lb. catfish) on a recent evening. The "low" holidaying in the 50s. was in a way encouraged by Hughie 5BC who read about somewhere in the local paper he read about a character at Walkers who got the "low" holidaying in the 50s. 280 countries to someone like Stew. 5BN3: 5LG and 5CV got into a mixed up contact one evening starting on 50mhz and drifted to fishing and grandchildren. George tells some good fish stories but it would not do to tell the game warden what George put over. They even waxed historical a bit. Quite interesting. Ian 5IZ putting up beams and has some 3000 feet of wire strung up over about 5 acres, all about 800 feet of sand line, plus a tower some 60 feet high. What a "farm," to say he is not a suburban type.

A recent evening produced an unusual complaint. A chap complaining of QRM. Nothing unusual about that you say, O.K., but this complaint had to do with the fact that the "low" holidaying in the 50s. one I leave to your imagination, or beat we have Pansy deal with it next month.

The beginning of a "low" holidaying in the 50s. Hand-book is the following: "How it all started... and if you think the beam you are using is a recent development, consider the fact that Marconi used a rudimentary form of the B.C. and Marconi employed a parabolic reflector to extend the range of his equipment before the turn of the century. The "low" holidaying in the 50s. nothing new under the sun, does friend Yagi turn over at this?"

Heard 5XZ saying that his XYL was painting the house and that his part of the job was to hold the light. Boy has he seen the light. A voice in the background of a 3.5 meg transmitter "You are coming in on the B.C. receiver inside" momentary silence, then, "Well you can switch it off." Was in that for a quick moment of covering B.C.I. in one lesson. No names mentioned.

5TU has done some research lately and comes up with the result that 90% of his contacts, on request, admitted some association with photography and now suggests an operating position in the dark room as a possibility. 5BDH has advised that he has been posted to Malaysia in June, R.A.F. type. That great outdoor man 5TH says he prefers portable operation over lunch time. 5YF, by stopping to eat, must eat sometime Vic, all the same he has found an ideal site at Lady Bay near Naracoorte, well in the middle. Max 5GF who was a Victor Harbour over the

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1R5	\$1.80	8A9GT	\$2.10
1B5	\$1.50	8A9GT	\$2.00
1B6	\$1.80	8A9	\$1.45
174	\$1.00	8A9A	\$2.40
104	\$1.60	8A9A	\$1.40
105	\$1.80	8B6	75c
2A5	75c	8B6A	\$1.25
2A7	75c	8B6	\$1.25
2B5	\$1.50	8B6	\$1.25
2B6	\$2.50	8B6	\$1.25
2X2	90c	8B6	\$1.25
2A4	\$2.50	8B6	\$1.25
2A5	\$1.00	8B6	\$1.25
2B5	\$1.80	8B6	\$1.25
2B6	\$1.50	8B6	\$1.25
3V4	\$1.50	8C3	80c
3A4	\$2.80	8C3	80c
3A5	\$1.45	8C7	\$1.55
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	\$2.25	7E7	50c	837	\$2.50
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	75c	7N7	75c	864	"
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	50c	12D5	80c	5819 Vidicon	\$2.00
	\$1.50	12SA7GT	\$1.00	6004	80
	75c	12S7	80c	9004	80
	75c	12S7	80c	92A60	80
	75c	12S7	80c	92C35	80
	75c	12S7	75c	92C35	\$5.00
	75c	12S7	80c	92C35	80
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Easter week-end with a real man-sized 40 watts on the air with this he is proceeding with a 100 watt rig, what then Max?

Jack SZL did some shovel work (horrible word) over Easter, shifting some concrete slabs and got to work on five tons of sand to level and top dress some lawns. First he had to buy a shovel. The shovels were not, but now that the job is done, and that he has seen the light, who wants a shovel, no immediate entries will appear. The shovel was the next buy and last night. In spite of all this his weight did not reduce.

Jack SZL has gone over in the "man's" industry and even fixed a product dealer for Athol SLQ, over to you Athol for the next move, but don't treat it like your 3-element job.

Jack SZL will be back next month, chaps, my sympathy to you all. TX, Comps VK3ZF.

WESTERN AUSTRALIA

A happy Pancake Saturday to you all, and greetings and congratulations to the new VK4 Council. I can't face, quite a vote of confidence in those who served us so well last year!

It is with deep regret that we record the passing of VK4AH. He will be greatly missed, not only by those who worked with him on the bands, but by his many friends throughout the country.

News to hand that Doc EAQ has been on the move to see some of our Eastern neighbours. Recently he made a trip to Perth, and a football for change, caused the brief stop-over in VK4. Hope you were able to round up a couple of leak-proof pens for the satellite recorder while you were there.

There should be some noticeable QRM from the Mandurah area now with both Jack 6BU and Ian 6BX. The station is now back. Now take it easy men, one at a time please.

A recent visit to some of our country hams confirmed that the band at Narrogin is particularly active. I understand that Ian 6CX has his new beam mounted on top of a mighty tower and was recently heard working W's on 80 metres.

Further east at Wickham, Aub 6XY has been crouched over text books and drawing board for some time, and is now ready to put his band rig which promises to be an extremely good one.

Also coming at large around the countryside, Jack 6RT operating portable. Disguised as a quartermaster, he operated as communications officer on the tour of the north-west. He also claims to be abetting him with a band of students.

Reports from Y.R.C. leaders indicate an upsurge of interest here in the new Good Luck boys—and girls—hope to see many of you on the bands soon.

It was pleasing to see a couple of YLs tracing our meeting recently. What a pity I couldn't talk them into forming a supper committee. Talked to a super-ham, Cyril 6GZ, and it is hoped that he is enjoying better health. Perhaps we will see you at a meeting or on the breeze soon Cyril.

It was also pleasing to see a ham interested in Ham radio as a result of visiting the shack of Brian 6VW during the last Scott Jamboore. The ham, who is now in the States, says that they sat for the April exam, Nice work, girls. Ian 6LG, who has also been in indifferent health for some time, is now back on his straps again. Just in time to do battle with that cursed Gullford grass-eh, Len?

Another old-timer enjoying a new lease of life is the well-known DX'er, Frank 6FL. When last seen Frank was smiling happily at the success of his newly-acquired rig. He is now back on his feet, and some of the reports he has been receiving.

Heard Jim 6RU chewing the rag the other day about 80 metres in the new DX'ing. He is so sure that he enjoyed the experience almost as much as hunting rare DX.

There is also considerable interest being shown in W.A. by the new ham struggle to receive official recognition is a long, hard one. Meetings with the appropriate authorities are still being held.

With the onset of winter it is hoped that more life will appear on 80 m. during the coming months. The ever-present lure of the one-eyed monster.

The recent visit to our sunny (?) shores was "The adieu" officially recorded as Vern VK3VB. We hope that both Vern and his XYL benefit from their brief stay in Sandrobert Territory.

Our Federal Councillor, Roy 6RY, is still raving on about the many attractions of Queensland—and sure must have been a beaut. convention! We certainly can't hope to match some of the things he has been saying.

Popular rumour has it that many of the v.h.f. boys are secretly preparing for the launching of Australia's first satellite. It looks as though the a.c.s. might get a look in this time too. Mr. How would that, you v.h.f. guys? Hi!

From reports given at our annual meeting it is pleasing to note that prospects for the forthcoming year look promising and encouraging. The recent drive for membership has netted the Division some 60 or so members in 11 months.

Sunday morning news broadcasts have reached an all-time high, with services on 150, 80, 40, 20 and 6 metres i.m. A new service recently introduced is directed to our members in the far north and at Cocos and Christmas Islands. Fine business Bob 6BE and relay station operators Brian and Peter 6ZEP.

The march of progress has swept up Bill 6VW and he had constructed a new sideband rig for portable use at his shack at the Moore river. Next thing you know you will be complaining about the weight of all these ATs that are being consigned to the rubbish bin.

Another welcome voice back on the band is that of our Patron, George 6GF, and we are hopeful that you will continue to enjoy improved service from him.

Somebody stop me quickly or I will be taking up too much space! Thanks, now I can blow out quietly.

Bill 6VW will sign like mine it would be a piece of cake to sign as "DAISY" but in deference, or difference, or something to our esteemed friend from VK3 we will endeavour to contain his words. TX, Ross 6VGD.

TASMANIA

What a time this April has been. I seem to have been out more nights than I've been home, not only the usual meetings, but two extra Council meetings, and, well, and, and, about either, all business, the last one towards the end of the month, going till around 11.30 p.m. I think every member of Council is on some other committee or sub-committee, or working with Institute business, so none of us look like getting any real 'at-up' for a few months—maybe a month or so (a little grumble), especially when one's efforts show signs of bearing fruit (who's talking about gardenia?)

With any luck as many councillors as possible (it looks like six of us at this stage) will have visited the north-west, northern shore by the time you read this. The idea being to explain to members (and answer their questions) the meaning of Federation, and its effect on the Institute as we know it at present.

Which brings me to the next subject on my list which happens to be the Easter Convention which was held in Brisbane. From what Ted 7EJ tells us he had a right royal time, and although several agenda items were rather contentious, the meeting was a success. As far as reached, the convention as a whole, and the cordiality shown visiting concourers by the A.C.E.N. staff, it was a success. I can do as well if not better in '67, when we are the hosts to the other Divisions.

Pencil bookings have already been made for accommodation at Hobart, and for the next Easter, and if the way the last five months have flown continues, it won't be long before the next Easter is upon us. Incidentally, we had ferns prior to Easter that we might lose Ted 7EJ to VK8, but I'm pleased to inform you, he's not going (who said "What a pity")

What a great boost was given the W.I.A. with the publicity in the press and on radio last night. Congratulations to all concerned, both with the actual project itself and the effect on the Institute as a whole.

At the Amateur Advisory Committee meeting in April a change of form was decided upon, the idea is that members work in pairs (plus in doubt in threes, etc., etc.) especially with s.a.b. stations, just in case one's receiver is at fault, incidentally, if at any time you are in doubt, ask me, I'm a member of the A.A.C. (or anyone else for that matter) take it in good part and do the right thing!

Ian 7ZZ told me tonight that he has at last got a W5 confirmed (Mississippi) after six years and now he is in A.S. He said he had visited 126 countries but he said, they're not all confirmed. DX has been extra good of late on 15 and 30, with openings to Europe especially.

Now for a few tit-bits, Dave 7ZAI has been out of his mind, he's been to another branch within the department so you can talk to him again now chaps, he's no longer the monomaniac. Den 7DK is at the time writing away on the mainland, and Charlie 7ZG is off to Sydney within the next couple of days (don't know for how long). He has been very busy with his business, but he is rebuilding his shack, as expected, it will take most of the winter months. I hope to be 'all systems go' by about March, and I hope to be as well as having my c.w. by then, at least six of us so-called "half fuils" hope to be "full fuils" by then. TX, all of you.

That's about it for this month chaps, except to remind you that the "R.D. Contest" is not very far away, only a couple of months. Now, if you are still unaffiliated, then brother this will be about the last chance you will find of mine (that's if you ever do read it). TX, Geoff 7ZAB.

NORTH WEST ZONE

The last meeting of this Zone took place at Lakin's Hall, Ulverston, on 3rd May in the form of a social affair. It was presided over by Brian 7ZBE gave a very instructive lecture on transmission lines and showed the gathering the importance of the importance of the antenna along the line and went on to show, by practical demonstration, of a.w.r. measurements, using a 100 mhz transmitter coupled through a variable capacitor to a 100 mhz antenna. The set-up and by varying the adjustment of the gamma match on the antenna, was able to show the importance of the antenna theory on a.w.r. readings and what have you.

After Brian had stepped down, Sid 7SF presented a paper on the importance of the antenna which turned out to be one he had prepared for the evening, and not as every one had surmised, the result of rifling the tin on top of the antenna. Sid 7SF also presented a paper on two very good films dealing with civil defence and nuclear explosions.

Supper was served 7ZRS/7MS style and one of the best I have ever had. Looked like the fact that George 7XL has now retired himself in a red spotted cravat and spiked shoes and jockey shorts, and a pair of red digger uppers, and can be heard yelling "fore" whenever his powerful shoulders send a ball flying through the wing doors.

Ken 7AI has been noticed up 400 hours solo flying—or was it 400 db's of effort I can't quite remember which!

Ken 7VK has that rx chassis still sitting on the bench, and he's been looking like he will have to give up working the Gs on 20 mhz a.m. Ken and get down to some unfinished construction work. TX, 7MS.

NORTHERN ZONE

Since the last notes local activity has been better than ever. The weather has turned out higher, but we still have a long way to go to break any records. What about it chaps? At our last meeting we welcomed two new members and an old member who has decided to rejoin. They were Carl Waldron and Bob Jackson with Don 7DB joining our ranks. Sorry to hear that Alan 7ZB has decided to forgo the meetings, Don, but let's hope that you can make it now and again.

Don 7ZB has been asked to join the Civil Defence Organization and provided the key to the A.C.E.N. activities. Interesting discussion on the A.C.E.N. activities. It was decided that we will see a little bit of wisdom in all that madness.

Peter 7ZF is going to give us our lecture at the next meeting on a.b. or "The Thing" as he calls it. He is a very good speaker, and we will see a little bit of wisdom in all that madness.

Bevan 7ZBW has returned from the big island and I believe that he was impressed by the gear he saw in the shops over there. A few feet of film was run and at last report he was cutting the tape. He might even show us his trip. Anyway, Bevan, I'm sure that we all thought of you while he was away.

7ZLX has moved a new shack to his QTH and is very busy setting up his gear, along with a better antenna. Don 7ZB has returned from his trip to the mainland with the car in one piece. The whip could not have made the car as top-heavy as I thought. Nice to hear your comments. The activity in VK3-5, Den, and also that you have had nearly as many contacts as my whole log book. I hope you will be able to do a good job of keeping you occupied while he played host. I believe you found the hospitality of your trip to the mainland what it was. If that's not a plug for the mainland what is?

That's all for the moment except that the next meeting requires yours and my attendance. See you there. A, Frank 7ZFR.

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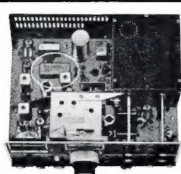
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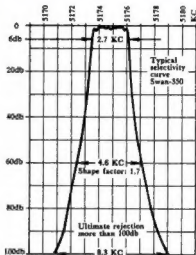


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